

GENTRAN:Server[®] for UNIX[®]

ODBC User's Guide

Application Integration Mapper

Version 6.0

Sterling Commerce
An IBM Company

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About This Guide

Introduction

Welcome Welcome to GENTRAN:Server[®] for UNIX[®] and Workstation *Application Integration ODBC User's Guide*.

GENTRAN:Server enables you to manage Open Database Connectivity (ODBC) documents along with traditional electronic commerce messages. This option enables you to maintain a homogenous processing and data management environment when incoming and outgoing data is formatted for a database.

What's in This Manual

Purpose This manual explains how to use ODBC with the Application Integration subsystem of GENTRAN:Server for UNIX. This manual uses a task-oriented approach, which is intended to answer any questions you may have about GENTRAN:Server with step-by-step instructions.

Note

This manual is not intended to explain or define ODBC.

Reference

For more information about ODBC, see the Microsoft Developers Network website (www.msdn.microsoft.com).

Assumptions This manual assumes that you are familiar with using a PC and with Microsoft® Windows® functions, including the terminology used to describe:

- ▶ Mouse and cursor actions.
- ▶ Windows-specific attributes, such as dialog boxes, icons, windows, and buttons.

This manual also assumes that you are familiar with:

- ▶ Your internal database application format
- ▶ Data mapping concepts
- ▶ The Application Integration mapper
- ▶ ODBC
- ▶ Structured Query Language (SQL).

(Continued on next page)

Description of contents

The *GENTRAN:Server Application Integration ODBC User's Guide* is organized into chapters. This table describes the contents.

Chapter	Description
About This Guide	Introduces the content, organization, and conventions in this guide. This chapter also describes how to get technical support.
Introduction to ODBC Mapping	Describes the basic concepts and functions of ODBC mapping and translation with the Application Integration mapper.
Working with ODBC Maps	Explains how to create, modify, and maintain maps that have a database file as the source or destination.

Online Help System

Additional documentation for GENTRAN:Server for UNIX and Workstation is contained in the online Help system. The online Help documentation includes all the dialog box element definitions, detailed processing information, and all the "how to" information contained in this manual.

Related Publications

GENTRAN:Server documentation

This table describes additional documentation for the GENTRAN:Server software.

Document	Description
Upgrade and Conversion Guide	Instructions for upgrading from previous versions of GENTRAN:Server Workstation and GENTRAN:Server for UNIX. Also includes instructions for converting the files that are part of the upgrade.
GENTRAN:Server for UNIX Installation and Setup Guide	Instructions for installing the GENTRAN:Server software and performing setup tasks, such as setting up security.
GENTRAN:Server Workstation Installation Instructions	Instructions for installing the GENTRAN:Server Workstation software and performing setup tasks.
Getting Started Guide	Instructions for starting and exiting GENTRAN:Server and for setting preferences and default values. Also includes instructions for checking files in and out and saving files.
NCPDP User's Guide	Instructions for mapping and translating NCPDP files with the Application Integration system.
XML User's Guide	Instructions for mapping and translating XML files with the Application Integration system. Note This guide is provided only if your organization has the GENTRAN:Server XML translation option.
ODBC User's Guide	Instructions for mapping and translating ODBC files with the Application Integration system. Note This guide is provided only if your organization has the GENTRAN:Server ODBC translation option.
GENCOD User's Guide	Instructions for mapping and translating GENCOD files with the Application Integration system and the Visual Mapper.

(Continued on next page)

(Contd) Document	Description
VDA User's Guide	Instructions for mapping and translating VDA files with the Application Integration system and the Visual Mapper.
Technical Reference Guide	Describes processes, lists command-line commands in alphabetical order, and describes file record layouts and data type formats.
Data Flow Administration Guide	<p>User instructions for configuring data flows using the GENTRAN:Server for UNIX software.</p> <p>Note This guide is provided only if you have the GENTRAN:Server EC Workbench or higher product level.</p>
Maintenance and Troubleshooting Guide	Instructions for maintaining your GENTRAN:Server installation. Also provides troubleshooting information to help determine the cause and solution of problems that may occur.
Advanced Data Distribution Guide	<p>Instructions for configuring and using the GENTRAN:Server Advanced Data Distribution product.</p> <p>Note This guide is provided only if you have GENTRAN:Server with Advanced Data Distribution.</p>
FTP Daemon User's Guide	Instructions for configuring and using the FTP Daemon tool with the Advanced Data Distribution product.
GENTRAN:Web Suite	Complete instructions for configuring and using the GENTRAN:Websuite product.
Online Help	Context-sensitive help screens describing the GENTRAN:Server dialog boxes for the mapping and translation features. Also includes procedures for using the mapping and translation and the data flow administration software.
Readme file	Information about recent enhancements included with this software release. This file is in the <i>/readme</i> directory on the Windows client computer.

(Continued on next page)

**Other
documentation**

This table lists other documentation you may need to refer to when installing and setting up GENTRAN:Server.

Description	Source
Instructions for installing and using the operating system on your computer.	Your hardware vendor The computer manufacturer

How to Get Help

Introduction This topic explains how to contact Sterling Commerce Product Support if you need assistance with GENTRAN:Server.

Scope of Support Services Sterling Commerce Product Support can provide assistance and information for the following:

- Installing GENTRAN:Server
- GENTRAN:Server product questions
- Software revisions and upgrades
- Implementing a specific feature
- How to use GENTRAN:Server
- The status of your support call
- Requests for product enhancements

Unfortunately, Sterling Commerce Product Support cannot assist you with problems involving the following, but we may be able to suggest a next step or another vendor to call:

- Your hardware
- Your operating system or other system software
- Your application or user-written programs
- Software not developed by Sterling Commerce
- Scripts written by Sterling Commerce consultants or service partners

Try this first Before you call Sterling Commerce Product Support, use your online software manuals to locate the section that documents the program or feature where you are having problems. The documentation may explain the software's behavior or give you insight to help you solve the problem.

Consult the *GENTRAN:Server Maintenance and Troubleshooting Guide* to learn if your specific problem has been addressed.

(Continued on next page)

Copy this page

Please feel free to make a copy of this page to enable you to contact support quickly and with complete information for the Customer Support Representative.

Necessary information

Be ready to provide this information when you call Product Support.

Your name
Your company name
Your telephone number
Your GENTRAN:Server version number
Your GENTRAN:Server product level and platform
Any software add-ons to your GENTRAN:Server system
A detailed description of the problem

(Continued on next page)

The sequence of steps that led to the problem
What actions you have taken to try to diagnose or resolve the problem

How to contact support

To determine how to contact support for your geographical location, go to the Sterling Commerce home page (www.sterlingcommerce.com) and then go to **Customer Support** for GENTRAN.

Documentation Conventions

Typographic conventions

This table describes the typographic conventions used in this guide.

Convention	Use
Italics	This typeface is used for titles of other manuals and documents, names of files and file extensions, and to emphasize important information. Example <i>GENTRAN:Server Getting Started Guide</i>
Bold	Bold type is used for menu names, button names, and entries you are to make on-screen. Example Click the Edit button.

Introduction to ODBC Mapping

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 - ▶ GENTRAN:Server's Database Option 3
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Overview

Introduction

This chapter describes how GENTRAN:Server handles ODBC data.

Key terms

This table describes key terms used in this chapter.

Term	Description
DSN	Data Source Name. The name that identifies a source of data, such as a database, to your system.
ODBC	Open Database Connectivity. A programming interface that enables applications to access data in a database management system that uses SQL as a data access standard.
SQL	Structured Query Language. The database query and programming language used to manipulate, define, and control relational databases.
SQL statement	A query or command written in SQL.
stored procedure	A named collection of SQL statements and procedural logic that is compiled, verified, and stored in the server database.

GENTRAN:Server's Database Option

Why use the Database

The Database option (also referred to as the "ODBC option") enables you to specify several data sources so that the system can query or update multiple databases during translation. Map creation directly from a database schema saves time and ensures that your map is synchronized with the latest version of your database.

GENTRAN:Server enables you to:

- ▶ Specify data sources that the system uses to query for data or update data in multiple databases in a single translation session.
- ▶ Add data sources and then test the connection and edit the connection string.
- ▶ View a model of the database schema, including lists of tables and columns.
- ▶ Generate fields directly from your database schema.
- ▶ Check the consistency of your database.

Note

GENTRAN:Server will place a timestamp of 00:00:00.000 on the end of any date that is written to the GENTRAN database without a timestamp, regardless of the

Data sources

GENTRAN:Server supports machine data sources, but does not support file data sources.

SQL

GENTRAN:Server provides a way for you to use Structured Query Language (SQL) to work with relational databases, such as Oracle[®], Sybase[™], Informix[®], Microsoft[®] SQL Server, Microsoft[®] Access, and others.

Oracle limitation

GENTRAN:Server for UNIX does not support the Oracle version of stored procedures.

Before you Begin

Prerequisites

This list describes the software prerequisites you must have installed to use ODBC with GENTRAN:Server.

- ▶ GENTRAN:Server for UNIX version 6.0 or greater
- ▶ GENTRAN:Server for UNIX ODBC translation option
- ▶ The latest version of the required ODBC drivers for your specific database.

Reference






See the *GENTRAN:Server ODBC Installation Guide* for more information on the latest ODBC drivers and other software supported with GENTRAN:Server.

- ▶ An ODBC-compliant database
 - ▶ SQL Server version 7.0 or greater, if you use SQL Server.
-



ODBC Map Components

Introduction Map component

This table describes the Application Integration map component icons that GENTRAN:Server uses to visually represent the ODBC map components.

Icon	Description
	The ODBC File Format icon identifies the ODBC data sources that GENTRAN:Server uses during translation, including the root element. It is a looping structure that contains groups, SQL statements, cursor operations, and input and output records that repeat in sequence until either the group data ends or the maximum number of times that the loop is allowed to repeat is exhausted.
	A group is a looping structure that contains related groups, statement records, cursor operations, and input and output records that repeat in sequence until either the group data ends or the maximum number of times that the loop is allowed to repeat is exhausted.
	A statement record represents a unit of SQL. This includes a SQL query (which may or may not return a result set), a command (which does not return a result set), or a stored procedure invocation (which may or may not return a result set).
	A cursor operation record contains instructions for the translator on moving to a new record in a result set returned by a query. Each operation is associated with a single statement record that returns a result set. The cursor operation record is only allowed on the input side of the map.
	An input record contains a logical group of fields that are suitable to be mapped to the output format. The input record is only allowed on the input side of the map.

(Continued on next page)

(Contd) Icon	Description
	An output record represents UPDATE, INSERT, or DELETE SQL statements, and contains fields. Output records may be created on both the input and output sides of a map.
	<p>The field corresponds to a column in a database table and contains the attributes of that column. On the input side, the field receives data from a column of the current row of the open SQL query. On the output side, the field represents a column the system updates or inserts, or a key column.</p> <p>You can also create fields that are not related to a database table or result set of a query.</p>

Working with Database Maps

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-

Getting Started

The Database Process

**Database
process table**

This table describes the process of using ODBC (a database) with the GENTRAN:Server Application Integration mapper.

Stage	Description
1	Create a map to translate ODBC documents. Reference See Creating a Map for more information. (Continued on next page)

(Contd) Stage	Description
2	<p>If necessary, build the INPUT and OUTPUT sides of the map in the following sequence.</p> <ol style="list-style-type: none"> a. Add data sources and test the connection. <p>Reference See Working with the ODBC File Component for more information.</p> b. Create groups and records. <p>Reference See Creating Map Components for more information.</p> c. Create any SQL statements and associate them with a data source. <p>Reference See How to Add an ODBC Data Source for more information.</p> d. Use the ODBC field generator to generate database fields. <p>Reference See How to Generate Database Fields for more information.</p> e. If necessary, create map components manually. <p>Reference See Defining a Database File Format for more information.</p> f. Verify the consistency of the database. <p>Reference See How to Check Database Consistency for more information.</p>
3	<p>Set the translation options.</p> <p>Reference See How to Set Translation Parameters for Database Maps for more information.</p>

Creating a Map

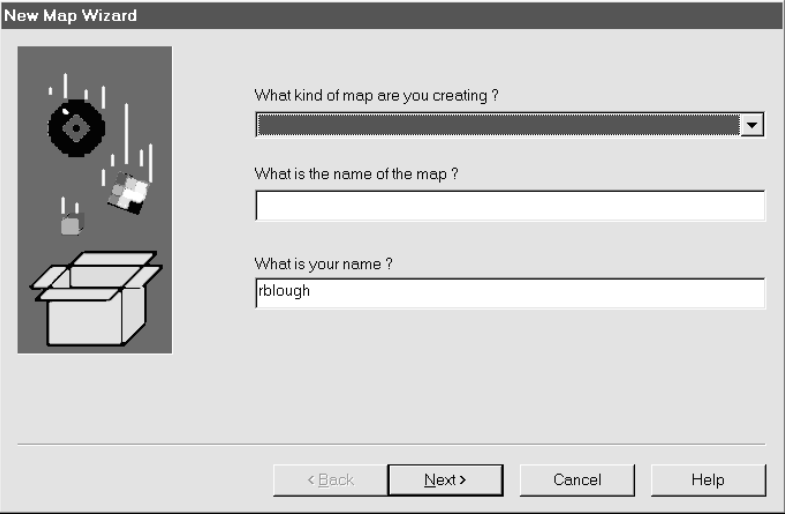
How to Create a New Map

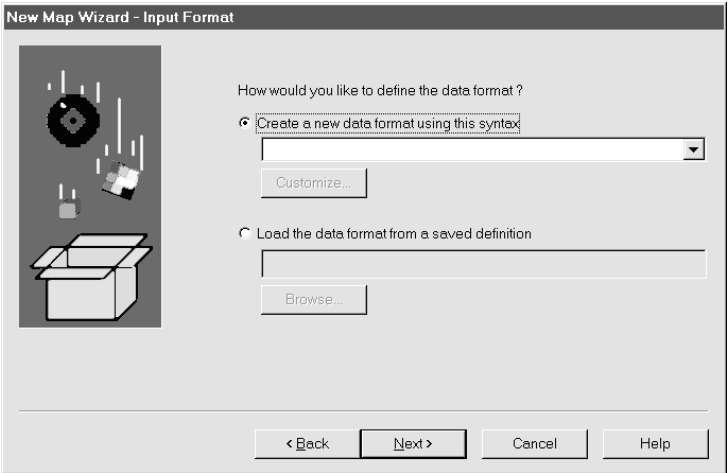
Introduction This topic explains how to use the New Map Wizard to create a new map.

CAUTION

If you use the ODBC syntax for both sides of the map, you must use a separate set of data sources on each side. One side cannot refer to the data sources that belong to the other side of the map.

Starting the map Use this procedure to start a new map.

Step	Action
1	<p>From the Application Integration File menu, select New.</p> <p>System Response The system displays the New Map Wizard.</p>  <p>(Continued on next page)</p>

(Contd) Step	Action							
2	<p>Answer the following questions.</p> <ul style="list-style-type: none"> ▶ <i>What kind of map are you creating?</i> Select the type of map (for example, application-to-standard, standard-to-application, or standard-to-standard, XML-to-application, etc.). The system views ODBC as an application. ▶ <i>What is the name of the map?</i> Type the unique name of the map. Omit the .MAP extension; the system will add the extension for you. ▶ <i>What is your name?</i> Type your name if it differs from the user name that the system supplied. 							
3	<p>Click Next.</p> <p>System Response The system displays the New Map Wizard - Input Format dialog box.</p> 							
4	<p>Use this table to determine how to create the input side of the map.</p> <table border="1" data-bbox="623 1535 1427 1766"> <thead> <tr> <th data-bbox="623 1535 1162 1591">IF you want to...</th> <th data-bbox="1162 1535 1427 1591">THEN go to...</th> </tr> </thead> <tbody> <tr> <td data-bbox="623 1591 1162 1682">create a new data format using a syntax that you define</td> <td data-bbox="1162 1591 1427 1682">the next step in this procedure.</td> </tr> <tr> <td data-bbox="623 1682 1162 1766">load the data format from a saved file definition (.DDF)</td> <td data-bbox="1162 1682 1427 1766">Loading a saved file definition</td> </tr> </tbody> </table> <p style="text-align: right; color: red;">(Continued on next page)</p>		IF you want to...	THEN go to...	create a new data format using a syntax that you define	the next step in this procedure.	load the data format from a saved file definition (.DDF)	Loading a saved file definition
IF you want to...	THEN go to...							
create a new data format using a syntax that you define	the next step in this procedure.							
load the data format from a saved file definition (.DDF)	Loading a saved file definition							

(Contd) Step	Action		
5	Click Create a new data format using this syntax , and then select one of the following format options for the input side of your map:		
	IF your input file format is...	THEN select...	AND then...
	EDI standard	Delimited EDI	GO TO Specifying an EDI standard
	Variable-length application file	Delimited EDI	GO TO Specifying a variable-length application file format
	Fixed-length application file	Positional	Click Next and GO TO Defining the output format
	VDA or GENCOD	Positional	Click Next and GO TO Defining the output format
	ODBC	ODBC	Click Next and GO TO Defining the output format
	XML	XML	GO TO Specifying an XML format

Loading a saved file definition

Use this procedure to load a saved file definition.

Step	Action
1	From the Input Format or the Output format dialog box, select Load the data format from a saved definition .
2	Click Browse to display the Open File Definition dialog box.
3	From the Open File Definition dialog box, select the file definition (.DDF file) you want to load.

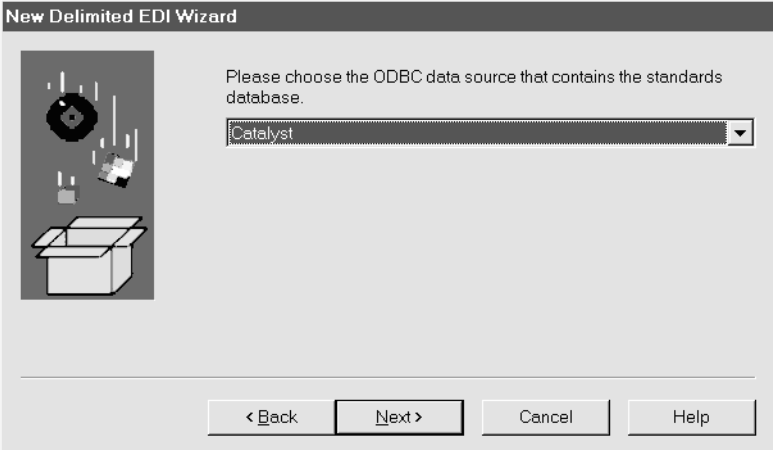
(Continued on next page)

(Contd) Step	Action		
4	Click Open . System Response		
	IF the file definition format you loaded was...	THEN you...	AND...
	for the input side of the map, and is valid	click Next to display the Output Format dialog box	GO TO Defining the output format
	for the output side of the map, and is valid	click Next	click Finish to create the map. GO TO What to do next
	invalid	displays a message box that explains the problem and terminates the process.	Make sure that the .DDF file is in a format that the Application Integration subsystem understands. Repeat Steps 1 through 4, selecting a valid file definition.

(Continued on next page)

Specifying an EDI standard

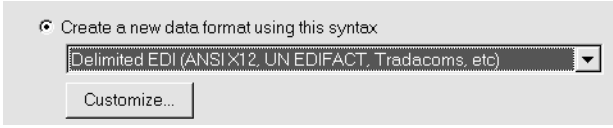
Use this procedure to specify a new EDI standard for the map.

Step	Action
1	<p>Do you want to choose a pre-defined EDI standard for this side of the map?</p> <ul style="list-style-type: none"> ▶ If YES, click Customize on the Input Format or Output Format dialog box; then continue with the next step. <p>System Response The system displays the New Delimited EDI Wizard dialog box.</p> <ul style="list-style-type: none"> ▶ If NO, GO TO Step 6.
2	On the New Delimited EDI Wizard dialog box, click Next .
3	<p>Select the ODBC data source that points to the standards database.</p> 
4	<p>Click Next.</p> <p>Note If the system displays a select or browse dialog box, select the directory folder that contains the standard.</p>
5	Select the standards agency, version, and transaction set, and (for TRADACOMS only) the release.
6	Click Next .
7	<p>Click Finish.</p> <p style="text-align: right; color: red;">(Continued on next page)</p>

(Contd) Step	Action		
8	Click Next .		
	System Response		
	IF you specified the format for...	THEN the system...	AND you should...
	the input side of the map	displays the New Map Wizard - Output Format dialog box.	GO TO Defining the output format
	the output side of the map	displays the last dialog box in the wizard	Click Finish . GO TO What to do next

Specifying a variable-length application file format

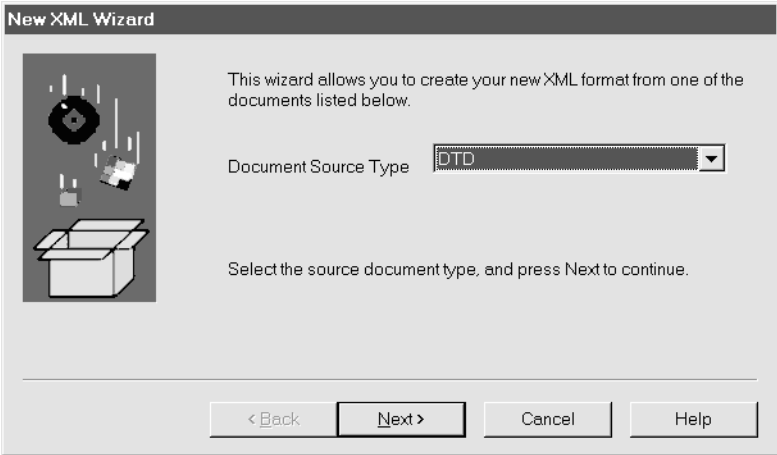
Use this procedure to specify a variable-length application file data format for the map.

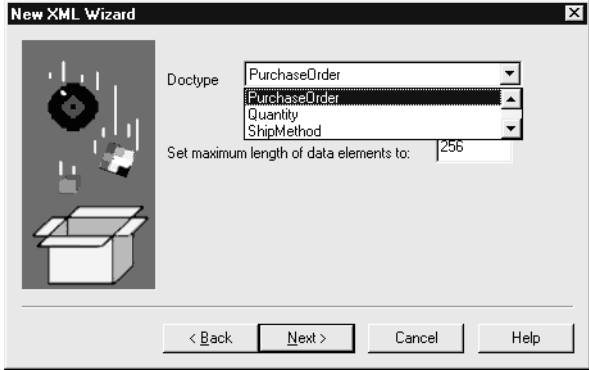
Step	Action		
1	Make sure that you selected Delimited EDI for the format.		
			
2	Click Next .		
3	Click Next .		
	System Response		
	IF you specified the format for...	THEN the system...	AND you should...
	the input side of the map	displays the New Map Wizard - Output Format dialog box	GO TO the Defining the output format topic.
	the output side of the map	displays the last dialog box in the wizard	Click Finish . GO TO the What to do next topic.

(Continued on next page)

Specifying an XML format

Use this procedure to specify an XML file format.

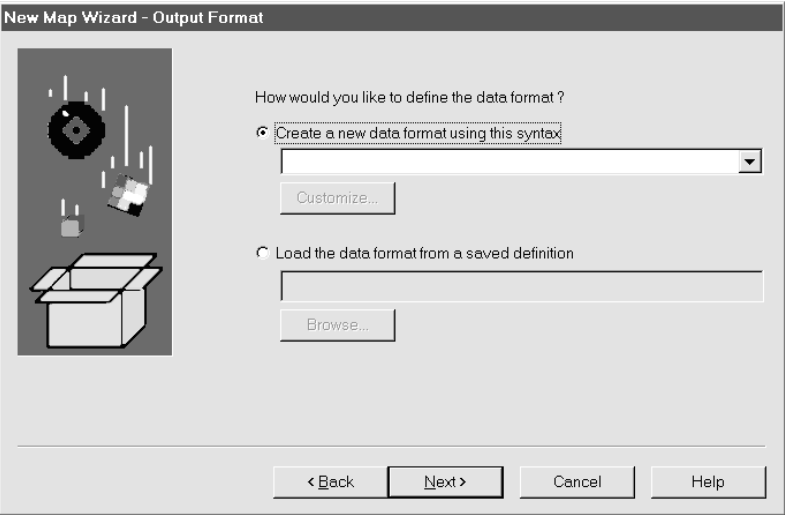
Step	Action
1	<p>Do you want to create your XML format from a predefined document input type (a DTD)?</p> <ul style="list-style-type: none"> ▶ If YES, click Customize on the Input Format or Output format dialog box and continue with the next step. <p>System Response The system displays the New XML Wizard dialog box.</p> <ul style="list-style-type: none"> ▶ If NO, GO TO Step 5. <p>System Response The system displays the New Map Wizard - Output Format dialog box.</p>
2	<p>From the New XML Wizard dialog box, select the document input type and click Next.</p> 
3	<p>Type the name of your DTD file or a URL pointing to the DTD and click Next.</p> <p style="text-align: right; color: red;">(Continued on next page)</p>

(Contd) Step	Action											
4	<p>Select the doctype, set the maximum length of data elements, and then click Next.</p> <p>System Response The system displays the New XML Wizard (Doctype) dialog box.</p> 											
5	<p>Click Finish.</p> <p>System Response The system returns to the New Map Wizard - Input Format dialog box.</p>											
6	<p>Click Next.</p> <p>System Response</p> <table border="1" data-bbox="620 1234 1424 1629"> <thead> <tr> <th data-bbox="620 1234 889 1325">IF you specified the format for...</th> <th data-bbox="889 1234 1159 1325">THEN the system...</th> <th data-bbox="1159 1234 1424 1325">AND you should...</th> </tr> </thead> <tbody> <tr> <td data-bbox="620 1325 889 1446">the input side of the map</td> <td data-bbox="889 1325 1159 1446">displays the New Map Wizard - Output Format dialog box.</td> <td data-bbox="1159 1325 1424 1446">GO TO the Defining the output format topic.</td> </tr> <tr> <td data-bbox="620 1446 889 1629">the output side of the map</td> <td data-bbox="889 1446 1159 1629">displays the final wizard dialog box</td> <td data-bbox="1159 1446 1424 1629">click Finish to create the map. GO TO the What to do next topic.</td> </tr> </tbody> </table>			IF you specified the format for...	THEN the system...	AND you should...	the input side of the map	displays the New Map Wizard - Output Format dialog box.	GO TO the Defining the output format topic.	the output side of the map	displays the final wizard dialog box	click Finish to create the map. GO TO the What to do next topic.
IF you specified the format for...	THEN the system...	AND you should...										
the input side of the map	displays the New Map Wizard - Output Format dialog box.	GO TO the Defining the output format topic.										
the output side of the map	displays the final wizard dialog box	click Finish to create the map. GO TO the What to do next topic.										

(Continued on next page)

Defining the output format

Use this procedure to define the output side of the map.

Step	Action	
1	<p>On the New Map Wizard - Output Format dialog box, specify the format for the output side of the map.</p> 	
	IF you want to...	THEN go to...
	load the data format from a saved file definition	the Loading a saved file definition topic.
	create a new data format using a syntax that you define (Continued on next page)	the next step in this procedure.

(Contd) Step	Action		
2	Select one of the following format options for the output side of your map:		
	IF your output file format is...	THEN select...	AND then...
	EDI standard	Delimited EDI	GO TO the Specifying an EDI standard topic.
	Variable-length application file	Delimited EDI	GO TO the Specifying a variable-length application file format topic.
	Fixed-length application file	Positional	Click Next . Click Finish. GO TO the What to do next topic.
	VDA or GENCOD	Positional	Click Next and GO TO the What to do next topic.
	ODBC	ODBC	Click Next . Click Finish. GO TO the What to do next topic.
	XML	XML	GO TO the Specifying an XML format topic.

(Continued on next page)

What to do next

After you create your map, you must define the input and output sides of the map. The steps you take are different, depending on the type of format you specified. Use this table to determine what to do next.

IF you want to...	THEN go to...
manually activate non-mandatory EDI standard groups, segments, and elements	How to Manually Activate EDI Standard Map Components in the <i>Application Integration User's Guide</i>
define a variable-length application file	Defining a Standard File Format or Variable-Length Application File in the <i>Application Integration User's Guide</i>
automatically activate EDI standard components based on a sample EDI file	How to Automatically Activate Standard Map Components in the <i>Application Integration User's Guide</i>
define a fixed-length application file	Defining a Fixed-Format Application File in the <i>Application Integration User's Guide</i>
define a standard file definition	Defining a Standard File Format or Variable-Length Application File in the <i>Application Integration User's Guide</i>
define a XML file definition	Defining an XML File Format
define an ODBC application file	Defining a Database File Format in the <i>Application Integration ODBC User's Guide</i> .

Defining a Database File Format

Overview

Introduction

When a side of your map is an ODBC (database) format, you must define your ODBC format to GENTRAN:Server. Your ODBC file format defines all the information that comes from your database (if the ODBC file is the input file for translation) or is sent to your database (if the ODBC file is the output file for translation).

Component organization

The system arranges each map component sequentially in the order that it is most logical for the system to process. Groups contain related records or subgroups. The records contain related fields.

You must create each level of your application file definition sequentially, so plan to create the groups, subgroups, and records before you create the subordinate fields.

Generate Field wizard

The system provides a wizard that enables you to automatically generate fields for an ODBC input or output record.

Reference

See [How to Generate Database Fields](#) for information.

Process

This table describes the process of defining an ODBC application file.

Stage	Description
1	Obtain a layout of the groups, records, and fields.
2	Set the ODBC File Properties to specify the data sources and database to which this map connects and connection information. Reference See How to Set ODBC File Properties for instructions.

(Continued on next page)

(Contd) Stage	Description
3	Add the ODBC data source. Reference See How to Add an ODBC Data Source for instructions.
4	Create the groups. Reference See How to Create a Group for instructions.
5	Create the records. Reference See Working with Input Records and Working with Output Records for instructions.
6	Create any SQL statements and associate them with a data source. Reference See Using SQL Statements in a Map for instructions.
7	Generate the database fields. Reference See How to Generate Database Fields for instructions.
8	Create any additional fields manually. Reference See How to Manually Create a Field for instructions.
9	Create any cursor operations records for the SQL statements. Reference See Using Cursor Operations with Result Sets of Statement Records for instructions.
10	Check the database consistency. Reference See How to Check Database Consistency for instructions.

Creating Map Components

Introduction The map components that you can create depend on which map component is currently selected (has focus in the map). This table describes the available options.

Note

N/A indicates that you cannot create a map component when the specified component is selected.

Component creation table

This table shows the components you can create when you select a specific map component.

IF the currently-selected component is a...	THEN you can create...
ODBC File	<ul style="list-style-type: none"> ▶ Group ▶ Statement Record ▶ Cursor Operation Record (input side only) ▶ Input Record (input side only) ▶ Output Record
Group	<ul style="list-style-type: none"> ▶ Group ▶ Statement Record ▶ Cursor Operation Record (input side only) ▶ Input Record (input side only) ▶ Output Record
Statement Record (Query/Command)	N/A
Cursor Operation Record	N/A
Input Record	Field
Output Record	Field
Field	N/A

(Continued on next page)

**Create Sub vs.
Insert functions**

You use two different GENTRAN:Server functions to create the necessary map components—Create Sub and Insert. This table explains when you use each of these functions.

IF you want to create a map component...	THEN right-click the map component to access the shortcut menu and select...	AND then...
at the same level (equal) as the selected map component,	Insert	select the appropriate option.
that is subordinate to the selected map component (a child component),	Create Sub	select the appropriate option.

Working with the ODBC File Component

ODBC File Component

Description The ODBC File component represents the ODBC (database) data sources that GENTRAN:Server is mapping, including the root element. GENTRAN:Server automatically creates this component.

Purpose The ODBC File component enables you to define ODBC data sources, connection parameters, and extended rules.

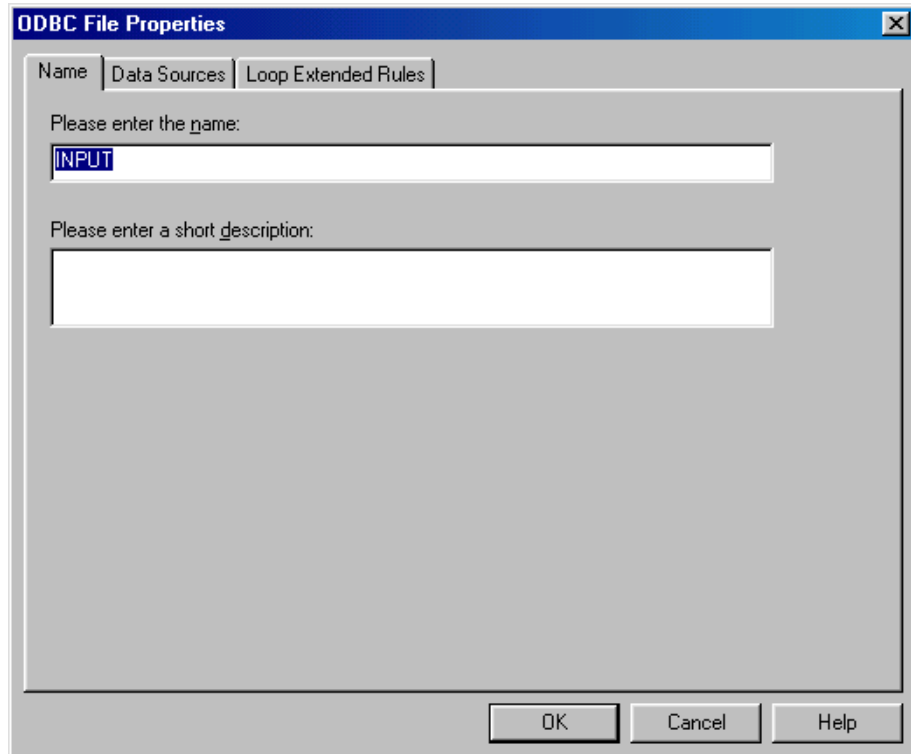
Limitations You cannot reference the ODBC File component in standard rules or links.

ODBC File Properties Dialog Box

Introduction The ODBC File Properties dialog box is used to specify information that identifies this component and the data sources to which this map connects. It has three tabs:

- ▶ Name
- ▶ Data Sources
- ▶ Loop Extended Rules

Name tab This diagram illustrates the Name tab of the ODBC File Properties dialog box.



(Continued on next page)

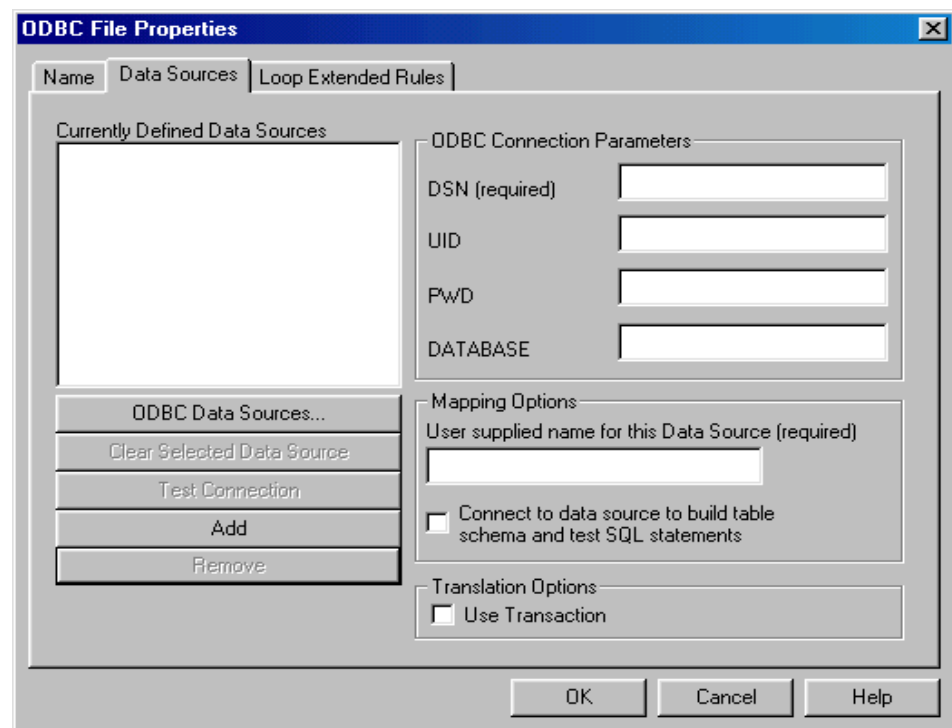
Name tab parts and functions

This table lists the parts of the Name tab and their functions.

Part	Function
Name	Identifies the ODBC file.
Description	Describes the ODBC file. This box is used to differentiate the ODBC file from similar files.

Data Sources tab

This diagram illustrates the Data Sources tab of the ODBC File Properties dialog box.



(Continued on next page)

Data Sources tab parts and functions

This table lists the parts of the Data Sources tab and their functions.

Part	Function
Currently Defined Data Sources	Displays the currently defined data sources.
DSN	Specifies the data source name, as identified by ODBC. Note Each DSN must be unique.
UID	Specifies the user ID, if necessary. Note Complete if you use a DSN that requires a connection.
PWD	Specifies the password, if necessary. Note Complete if you use a DSN that requires a password to connect to it.
DATABASE	Specifies the database name.
User supplied name for this data source	Indicates how you want to refer to the data source name. Note Complete this box if this name is different from the ODBC DSN. This is the DSN, which the system propagates to all applicable Properties dialog boxes in the map.
Connect to data source to build table schema and test SQL statements	Indicates that the system connects to this data source and uses that information to build the database table schema and test the SQL queries, thus generating a result set.
Use Transaction	Indicates that the translator performs all the operations on the data source in a transaction. Note If there is a database error during translation, the system rolls the database back to a previous state that does not contain errors.

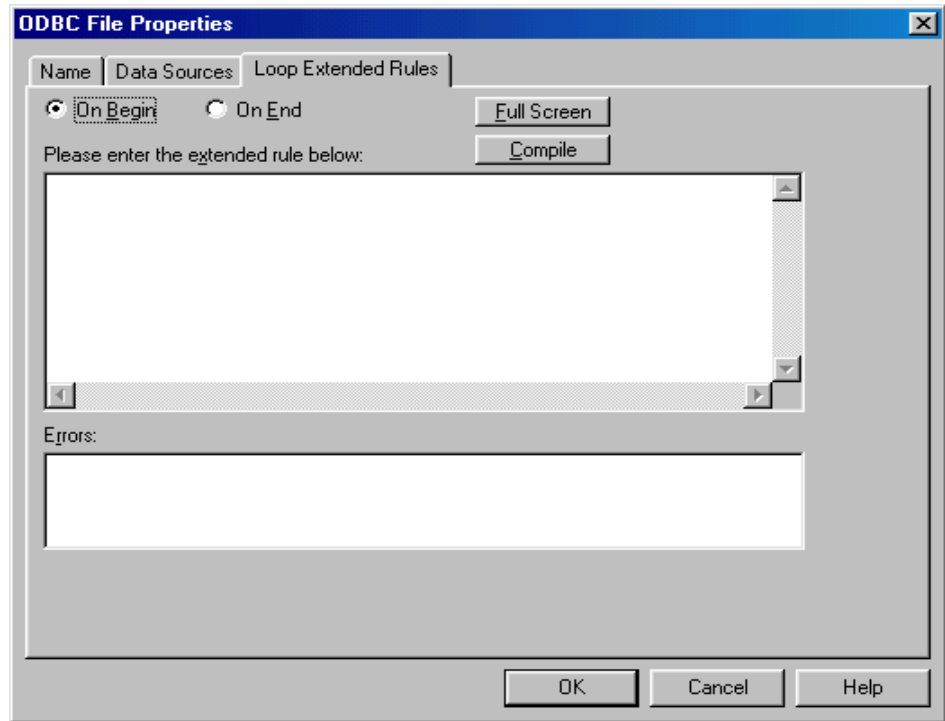
(Continued on next page)

(Contd) Part	Function
ODBC Data Sources	Accesses the Select Data Source dialog box, which enables you to create a data source or select one that was previously created.
Clear Selected Data Source	Clears the parameter boxes so that you can add another data source.
Test Connection	Tests the connection of the selected ODBC data source.
Update/ Add	<p>Rebuilds the database schema for the selected data source if you specified Test Connection. After the system rebuilds the schema, it automatically checks all the components in the file format that depend on that schema. If possible, the system also modifies the data-type and validation information for those components to match the new schema. Then, the system performs a consistency check and fixes those inconsistencies.</p> <p>Note If you do not select a data source or there are no data sources in the list, the system displays Update as Add, which allows you to add a data source you previously created to the Currently Defined Data Sources list.</p> <p>Reference See How to Check Database Consistency for more information on database consistency checking.</p>
Remove	<p>Deletes the selected data source from the data source list (not from the machine). This invalidates and clears all fields or records that reference it.</p> <p>Note When you click this button, the system prompts you to confirm that you want to remove the selected data source from the list.</p>

(Continued on next page)

Loop Extended Rules tab

This diagram illustrates the Loop Extended Rules tab of the ODBC File Properties dialog box.



Loop Extended Rules tab parts and functions

This table lists the parts of the Loop Extended Rules tab and their functions.

Part	Function
On Begin	Specifies that the extended rule is executed before the system processes the map component.
On End	Specifies that the extended rule is executed after the system concludes processing the map component.
Full Screen	Maximizes the dialog box.

(Continued on next page)

(Contd) Part	Function
Compile	Compiles the extended rule. Any warnings or errors are displayed in the Errors list. Note This function gives you immediate feedback about the accuracy of your rule. The rule is compiled when you compile the entire map to create the translation object.
Extended rule	Defines the extended rule.
Errors	Displays any errors generated when you clicked Compile to compile the extended rule.

How to Set ODBC File Properties

- Introduction** This topic describes how to specify or modify the:
- ▶ Name and description of the ODBC File component
 - ▶ Data sources and database to which this map connects plus connection information
 - ▶ Extended rules for this map component.

Procedure Use this procedure to modify the properties of an ODBC file.

Step	Action
1	<p>Right-click the ODBC File icon and select Properties from the shortcut menu.</p> <p>System Response The system displays the ODBC File Properties dialog box.</p>
2	<p>Do you want to add an ODBC data source?</p> <ul style="list-style-type: none"> ▶ If YES, select the Data Sources tab to access data source options. <p>Reference See How to Add an ODBC Data Source for instructions.</p> <ul style="list-style-type: none"> ▶ If NO, continue with Step 3.
3	<p>Do you want to specify an extended rule for the ODBC file?</p> <ul style="list-style-type: none"> ▶ If YES, select the Loop Extended Rules tab, define the rule, and continue with Step 4. <p>Reference See the <i>GENTRAN:Server Application Integration User's Guide</i> for more information about defining extended rules.</p> <ul style="list-style-type: none"> ▶ If NO, continue with Step 4.
4	<p>Click OK.</p> <p>System Response The system saves your changes and closes the ODBC File Properties dialog box.</p>

How to Add an ODBC Data Source

Introduction This topic describes how to add an ODBC (database) data source to this side of the map. GENTRAN:Server will use this data source during translation.

Procedure Use this procedure to create an ODBC data source.

Step	Action
1	Right-click the ODBC File icon and select Properties from the shortcut menu. System Response The system displays the ODBC File Properties dialog box.
2	Select the Data Sources tab to access the data source options.
3	Click ODBC Data Sources . System Response The system displays the Select Data Source dialog box.
4	Do you want to select a machine data source? <ul style="list-style-type: none"> ▶ If YES, select the Machine Data Source tab and continue with the next step. ▶ If NO, continue with Step 7. Note GENTRAN:Server does not support File Data Sources.
5	On the Machine Data Source tab, select the machine data source you want to use and click OK . System Response The system exits the Select Data Source dialog box and displays a Login dialog box.
6	Verify the login information and click OK . System Response The system returns you to the ODBC File Properties dialog box.

(Continued on next page)

(Contd) Step	Action
7	<p>On the ODBC File Properties Data Sources tab, complete these boxes, click Add, and then continue with Step 8:</p> <ul style="list-style-type: none">▶ DSN (required)▶ DATABASE (optional)▶ Password (optional)▶ User defined name for this Data Source (optional) <p>System Response The system adds the data source to the list and prompts you that it is building the schema for that data source.</p>
8	<p>Do you want to test the connection to a data source?</p> <ul style="list-style-type: none">▶ If YES, select the data source and click Test Connection, and continue with Step 9. <p>Note If you click Test Connection, the system attempts to rebuild the schema whenever you perform an UPDATE or check database consistency, and it tests all queries running against that data source.</p> <p>System Response The system tests the connection of the selected data source and prompts you with a dialog box containing the results of the test. To exit the dialog box, click OK.</p> <ul style="list-style-type: none">▶ If NO, continue with Step 9.
9	<p>Click OK.</p> <p>System Response The system closes the ODBC File Properties dialog box.</p>

Working with Groups

Groups

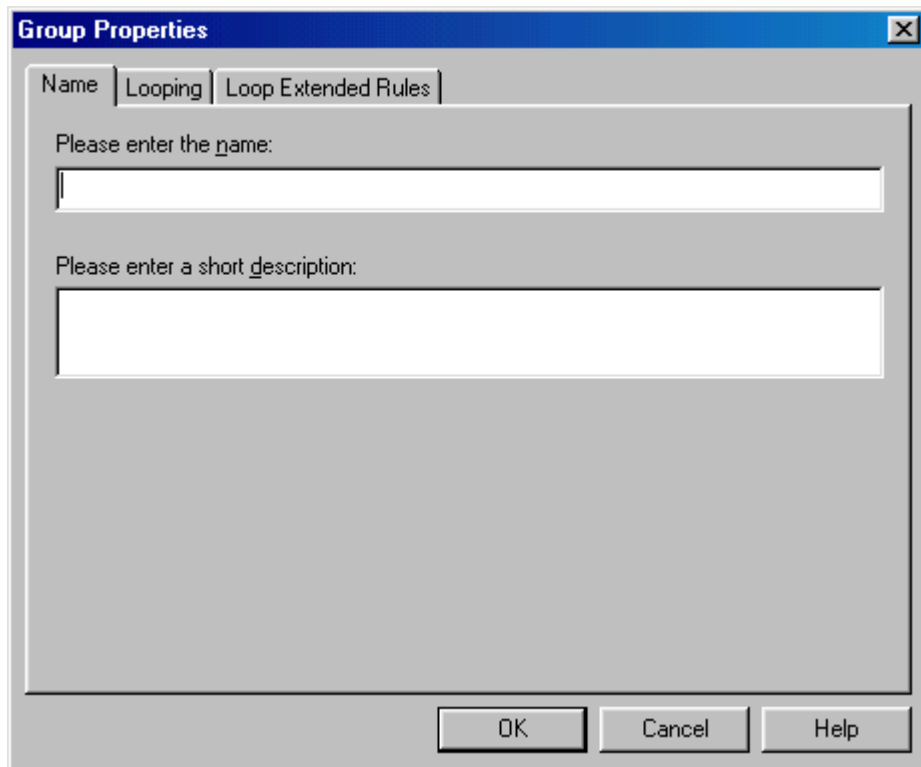
Definition A group contains related groups, SQL statements, cursor operations, and input and output records that repeat in sequence until either the group data ends or the maximum number of times that the loop is allowed to repeat is exhausted.

Limitation You cannot reference the group component in standard rules or links.

Group Properties Dialog Box

Introduction The Group Properties dialog box is used to set the properties of a group.

Name tab This diagram illustrates the Name tab of the Group Properties dialog box.



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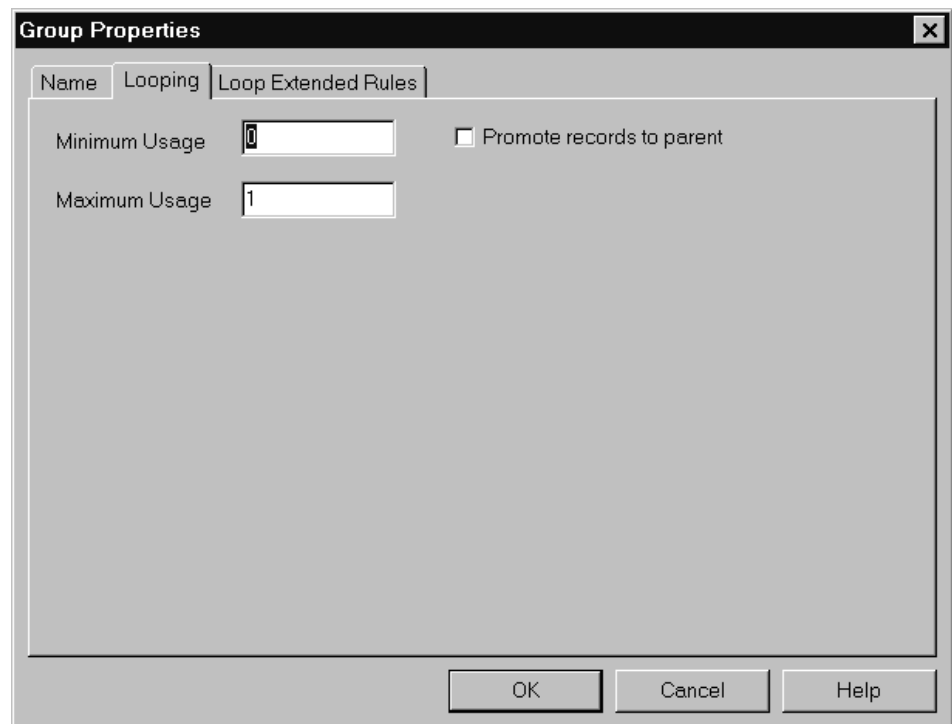
Name tab parts and functions

This table lists the parts of the Name tab and their functions.

Part	Function
Name	Identifies the group name. Note Do not use spaces or dashes (-) in the group name. You can use the underscore (_) to separate words.
Description	Describes the group to differentiate it from other similar groups.

Looping tab

This diagram illustrates the Looping tab of the Group Properties dialog box.



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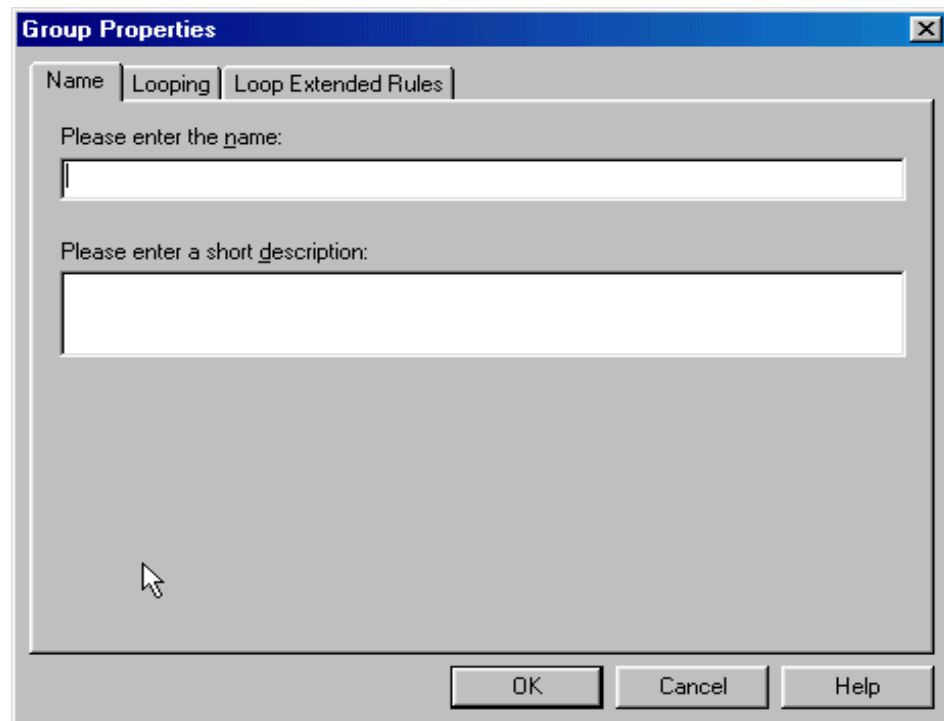
Looping tab parts and functions

This table lists the parts of the Looping tab and their functions.

Part	Function
Minimum Usage	Specifies the minimum number of times the loop must be repeated. For a conditional loop, the minimum usage should always be "0" (zero).
Maximum Usage	Specifies the maximum number of times the loop can be repeated.
Promote records to parent	Indicates that when the group is compiled, the subordinate records and groups will be extracted from the loop and located in the parent group. This function is valid for single iteration subgroups only.

Loop Extended Rules tab

This diagram illustrates the Loop Extended Rules tab of the Group Properties dialog box.



(Continued on next page)

Loop Extended Rules tab parts and functions

This table lists the parts of the Loop Extended Rules tab and their functions.

Part	Function
On Begin	Specifies that the extended rule is executed before the system processes the map component.
On End	Specifies that the extended rule is executed after the system concludes processing the map component.
Full Screen	Maximizes the dialog box.
Compile	Compiles the extended rule. Note The system displays any warnings or errors in the Errors list.
Extended rule	Defines the extended rule.
Errors	Displays any errors generated when you clicked Compile to compile the extended rule.

How to Create a Group

Introduction This topic describes how to create a new group component in your map.

Procedure Use this procedure to create a group.

Step	Action
1	Right-click a map component and select either Create Sub or Insert from the shortcut menu. Reference See Creating Map Components for more information on the Create Sub and Insert functions.
2	From the shortcut menu, select Group . System Response The system displays the Group Properties dialog box.
3	On the Name tab, specify the following: <ul style="list-style-type: none"> ▶ unique group name in the Name box ▶ description (if applicable) in the Description box.
4	Click the Looping tab to access looping options.
5	In the Minimum Usage box on the Looping tab, type the minimum number of times the loop must be repeated. Note For a conditional loop, the minimum usage should always be “0” (zero). For a mandatory loop, the minimum usage should be “1” or greater.
6	In the Maximum Usage box, type the maximum number of times the loop can be repeated.
7	Is this a single iteration group? <ul style="list-style-type: none"> ▶ If YES, select Promote records to identify this group as a parent component. This means that the subordinate records and groups will be extracted and located in the parent group when the group is compiled. ▶ If NO, continue with the next step. <p style="text-align: right;">(Continued on next page)</p>

(Contd) Step	Action
8	<p>Do you want to specify an extended rule for this group?</p> <ul style="list-style-type: none">▶ If YES, select the Loop Extended Rules tab and create the rule. <p>Reference See the <i>GENTRAN:Server Application Integration User's Guide</i> for information about creating extended rules.</p> <ul style="list-style-type: none">▶ If NO, continue with the next step.
9	<p>Click OK.</p> <p>System Response The system saves the group and closes the Group Properties dialog box.</p>

Using SQL Statements in a Map

Statement Records

What is a statement record?

A statement record contains an SQL statement that is associated with a single data source.

SQL statements

An SQL statement is an instruction, written in SQL, that specifies how to manipulate data in a data source. An SQL statement can be:

- ▶ An **SQL query**, which returns data and can be used later in the map
- ▶ A **command**
- ▶ A **stored procedure**, which is a named collection of SQL statements and procedural logic that is compiled, verified, and stored in the server database.

Result sets

A result set is a set of data retrieved from a database.

If you use a query or stored procedure, you can choose to have the statement return a result set. If you choose to use a result set, you can specify a cursor operation to tell the translator what to do with the result set.

Commands never return result sets, so you do not have the choice.

Purpose

You can use SQL statements to access and manipulate data in a specified data source.

Example

```
SELECT Name, Address FROM Customer_table WHERE city = 'NewYork'
```

Limitations

You cannot reference a statement record in standard rules, extended rules, or links.

Statement Record Process

Introduction This topic describes the process of working with statement records.

Stages in the process This table describes the stages in the process of working with statement records.

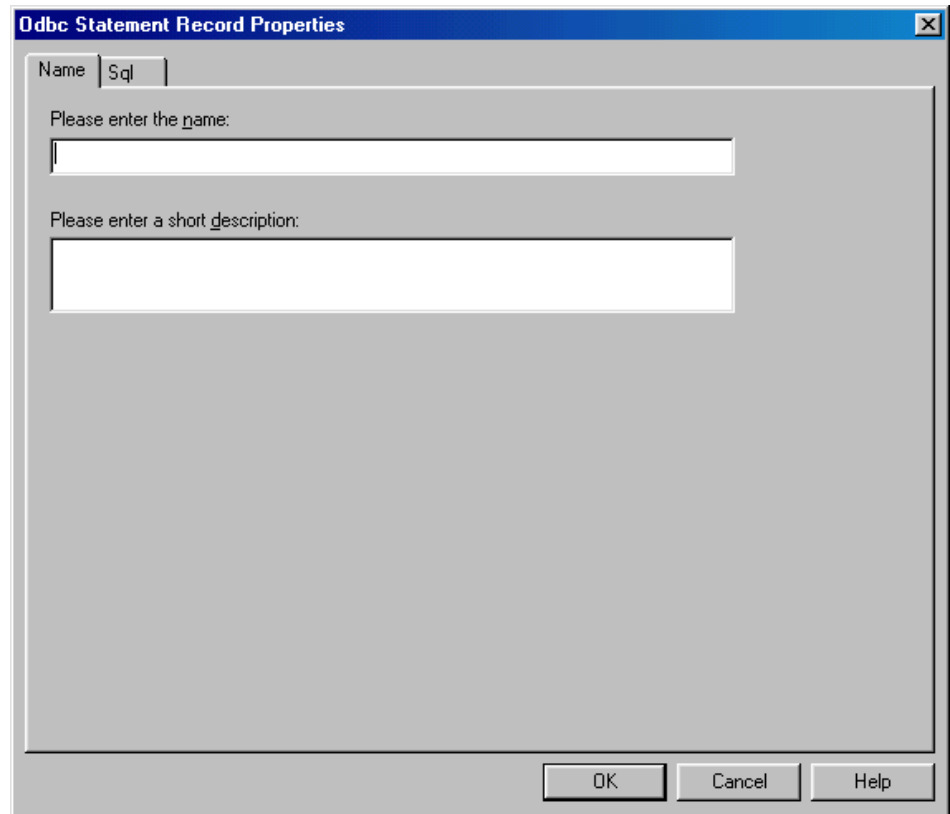
Stage	Description
1	Select a data source to associate with the statement.
2	Type an SQL statement, test its validity, and generate a result set of columns returned from the query or stored procedure. Note The system uses this result set in the ODBC field generator for input records.
3	Connect to the data source and test the statement.

ODBC Statement Record Properties Dialog Box

Introduction The ODBC Statement Record Properties dialog box is used to create an SQL statement or command and associate it with a data source. This dialog box has two tabs:

- ▶ Name
- ▶ Sql

Name tab This diagram illustrates the Name tab of the ODBC Statement Record Properties dialog box.



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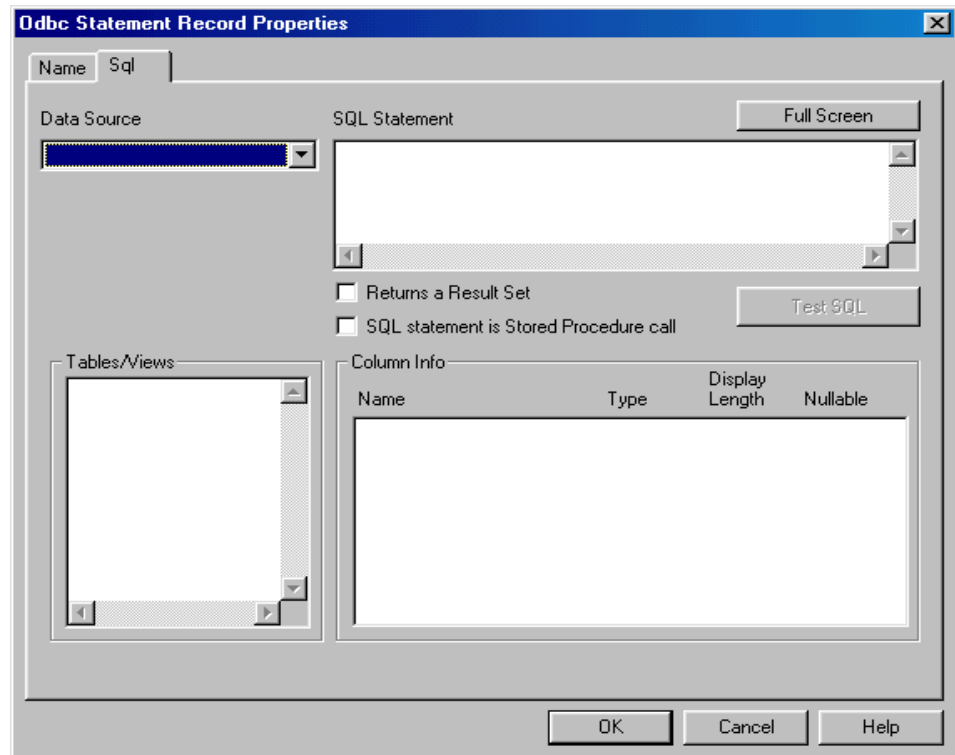
Name tab parts and functions

This table lists the parts of the Name tab and their functions.

Part	Function
Name	Defines the statement record name.
Description	Describes the statement record.

Sql tab

This diagram illustrates the Sql tab of the ODBC Statement Record Properties dialog box.



(Continued on next page)

Sql tab parts and functions

This table lists the parts of the Sql tab and their functions.

Part	Function
Data Source	Contains a list of all the data sources associated with this side of the map.
SQL Statement	Enables you to type a statement in SQL. Note This box also accepts C-style comments. Example *This is a comment*
Full Screen	Maximizes the SQL statement list.
Returns a Result Set	Indicates that the system should generate and return a result set for the specified SQL. Note You must select this option if you want to use cursor operations to manipulate the result set of the query.
SQL statement is a stored procedure	Indicates that the entry in the SQL Statement list is a stored procedure instead of a query or command.
Test SQL	Tests the statement in the SQL Statement list.
Tables	Contains a list of database tables and views associated with the selected data source.
Column Info	Contains the column information from the selected database table. Note The data type displayed is the GENTRAN:Server data type of the column, not the actual database data type.

How to Create a Statement Record

Introduction This topic describes how to create a statement record and associate it with a data source.

Procedure Use this procedure to create a statement record.

Step	Action
1	Right-click a map component and select either Create Sub or Insert from the shortcut menu. Reference See Creating Map Components for more information on the Create Sub and Insert functions.
2	From the shortcut menu, select Query/Command . System Response The system displays the ODBC Statement Record Properties dialog box.
3	On the Name tab, type the following: <ul style="list-style-type: none"> ▶ Unique statement record name in the Name box ▶ Description (if applicable) in the Description box.
4	Select the Sql tab to access the statement options.
5	From the Data Source list on the Sql tab, select the data source you want to use for this statement. System Response If a schema exists for the selected data source, the system displays a list containing all the tables and views.
6	In the SQL Statement list, type the SQL statement or stored procedure.
7	Do you want the system to return a result set when you test the statement? <ul style="list-style-type: none"> ▶ If YES, select the Returns a Result Set option and continue with Step 9. ▶ If NO, continue with Step 10.

(Continued on next page)

(Contd) Step	Action
8	<p>Is the statement a stored procedure?</p> <ul style="list-style-type: none"> ▶ If YES, select the SQL statement is Stored Procedure option and continue with the next step. ▶ If NO, continue with the next step.
9	<p>Click Test SQL.</p> <p>Note This function is valid only if you selected Test Connection on the Data Sources tab of the ODBC File Properties dialog box.</p> <p>Reference See Working with the ODBC File Component for more information.</p> <p>System Response The system tests the statement and returns a result set if you selected that option.</p>
10	<p>Click OK.</p> <p>System Response The system saves the statement record and closes the ODBC Statement Record Properties dialog box.</p>

Adding cursor operation records

If the statement record you created is on the input side of the map, you can add a cursor operation record to tell the translator how to move through the result set to a new record.

Reference

See [Using Cursor Operations with Result Sets of Statement Records](#) for instructions.

Using Cursor Operations with Result Sets of Statement Records

Cursor Operation Record

Introduction If a statement record is on the input side of a map, you can use a cursor operation record to manipulate the statement record's result set during translation.

What is a cursor operation record? A cursor operation record tells the translator what to do with the result set of a statement record. Each cursor operation record is associated with a single ODBC statement record. The system performs cursor operations when the translator encounters them as it processes the map.

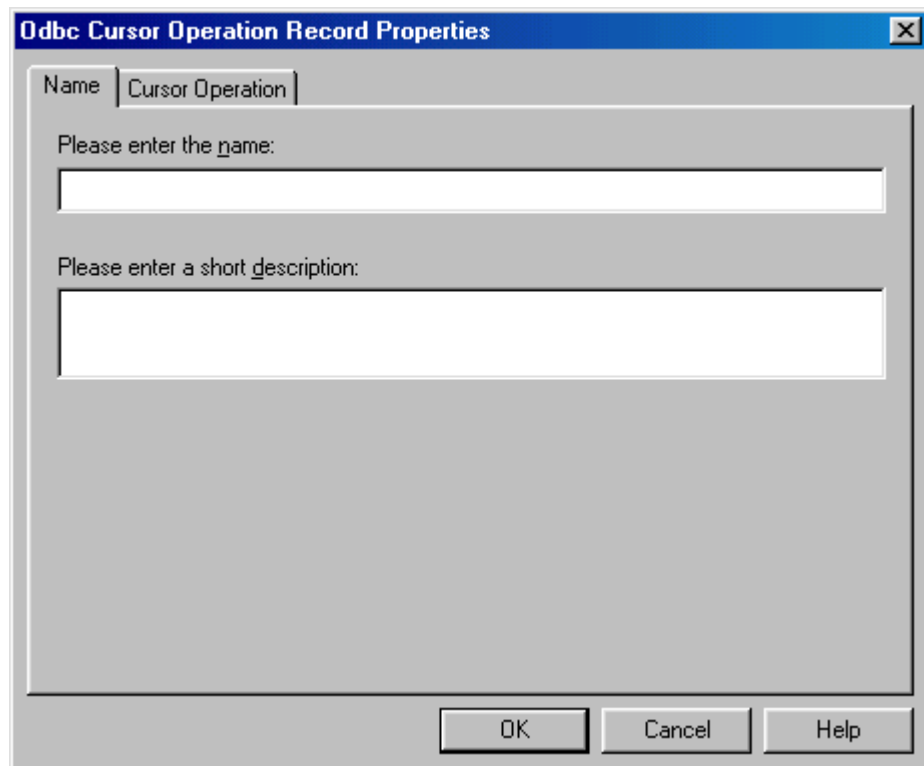
Limitations You can use cursor operation records on the input side of a map, but not on the output side.

You cannot reference the cursor operation record in standard rules, extended rules, or links.

ODBC Cursor Operation Record Properties Dialog Box

Introduction The Cursor Operation Record Properties dialog box is used specify what you want the translator to do with the result set of a particular query statement.

Name tab This diagram illustrates the Name tab of the ODBC Cursor Operation Record Properties dialog box.



Name tab parts and functions

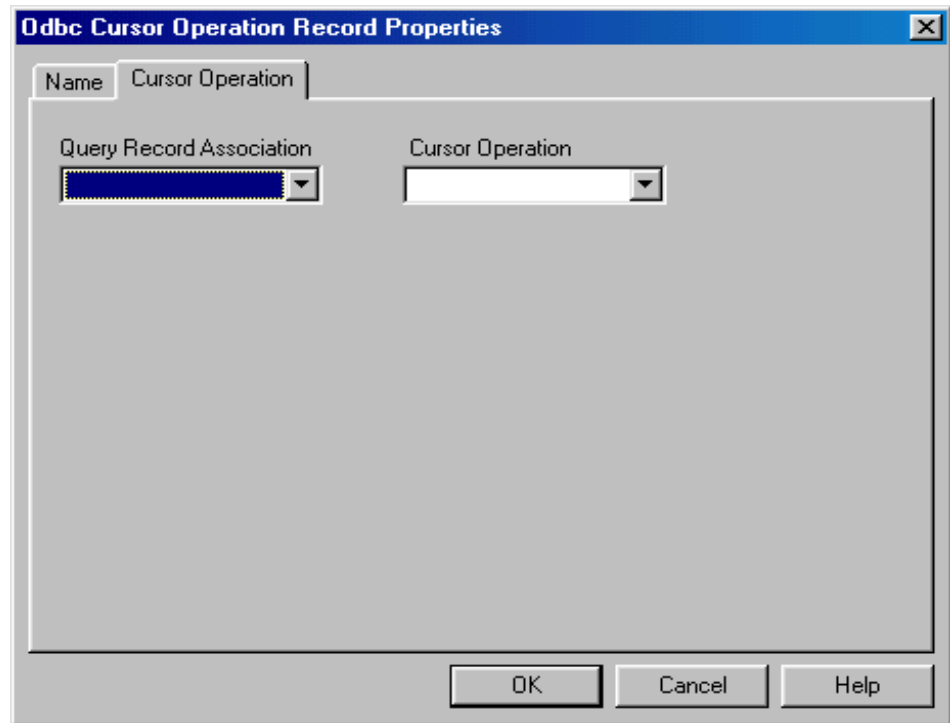
This table lists the parts of the Name tab and their functions.

Part	Function
Name	Defines the cursor operation record name.
Description	Describes the cursor operation record.

(Continued on next page)

**Cursor
Operation tab**

This diagram illustrates the Cursor Operation tab of the ODBC Cursor Operation Record Properties dialog box.



(Continued on next page)

**Cursor
Operation tab
parts and
functions**

This table lists the parts of the Cursor Operation tab and their functions.

Part	Function
Query Record Association	Contains the statement record of type “query” with which you associate the cursor operation. Note The statement record must return a result set.
Cursor Operation	Contains the operation that the translator performs on the result set. Valid selections are as follows. <ul style="list-style-type: none">▶ No Op - indicates that the system is to test the effect of removing a cursor operation without actually removing the component.▶ Move First - moves the cursor to the first element of the result set▶ Move Next - moves the cursor to the next element of the result set▶ Move Last - moves the cursor to the last element of the result set▶ Most Previous - move the cursor to the first record in the previous result set▶ Close - closes the result set.

How to Create a Cursor Operation Record

Introduction This topic describes how to create a cursor operation record that specifies what the translator should do with the result set of the associated query statement.

Procedure Use this procedure to create a cursor operation record.

Step	Action
1	Right-click a map component and select either Create Sub or Insert from the shortcut menu. Reference See Creating Map Components for more information on the Create Sub and Insert functions.
2	From the shortcut menu, select Cursor Operation . System Response The system displays the ODBC Cursor Operation Record Properties dialog box.
3	On the Name tab, specify the following: <ul style="list-style-type: none"> ▶ Unique cursor operation record name in the Name box ▶ Description (if applicable) in the Description box.
4	Select the Cursor Operation tab to access the operation options.
5	From the Query Record Association list, select the query that you want the system to use to obtain a result set that is then moved to the record.
6	From the Cursor Operation list, select the cursor operation.
7	Click OK . System Response The system saves the cursor operation record and closes the ODBC Cursor Operation Record Properties dialog box.

Working with Input Records

Input Records

What is an input record?

An input record contains a logical group of fields that are suitable to be mapped to the output format.

Example

The input side of the map is ODBC and the output file format is Positional. You need to generate a record using information from two separate queries. You can create an ODBC input record that contains fields that obtain data from the appropriate columns of both queries. Then you can link those fields directly to the corresponding positional fields.

Limitations

You cannot reference the input record in standard rules or links.

Key field functionality

Input records support the standard GENTRAN:Server key field constant and code list functionality. Additionally, the system enables you to match against fields that appear earlier in the map. If you choose to match against an earlier mapped field, you can use up to three key fields.

This additional key field functionality is very useful when you are mapping from a join of master-detail records to an equivalent hierarchy, because this allows the translator to detect when the keys in the detail level no longer match the keys in the master level.

Auto get next cursor operation

If the fields of an input record all belong to the same query, you can have the system automatically perform an **auto get next** cursor operation as the input record loops.

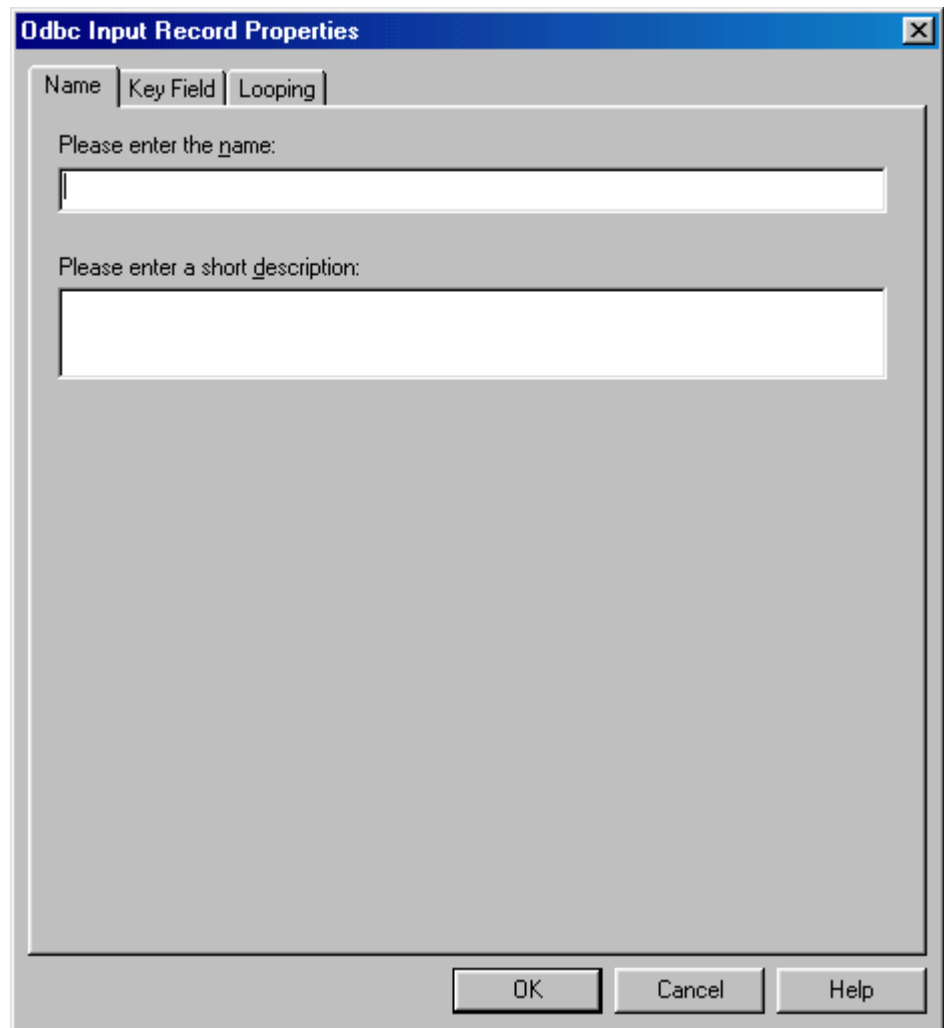
Note

You specify the **Automatically get next row from Statement record** option on the Looping tab of the ODBC Input Record Properties dialog box.

ODBC Input Record Properties Dialog Box

Introduction The ODBC Input Record Properties dialog box is used to specify the properties of an input record.

Name tab This diagram illustrates the Name tab of the ODBC Input Record Properties dialog box.



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**Name tab parts
and functions**

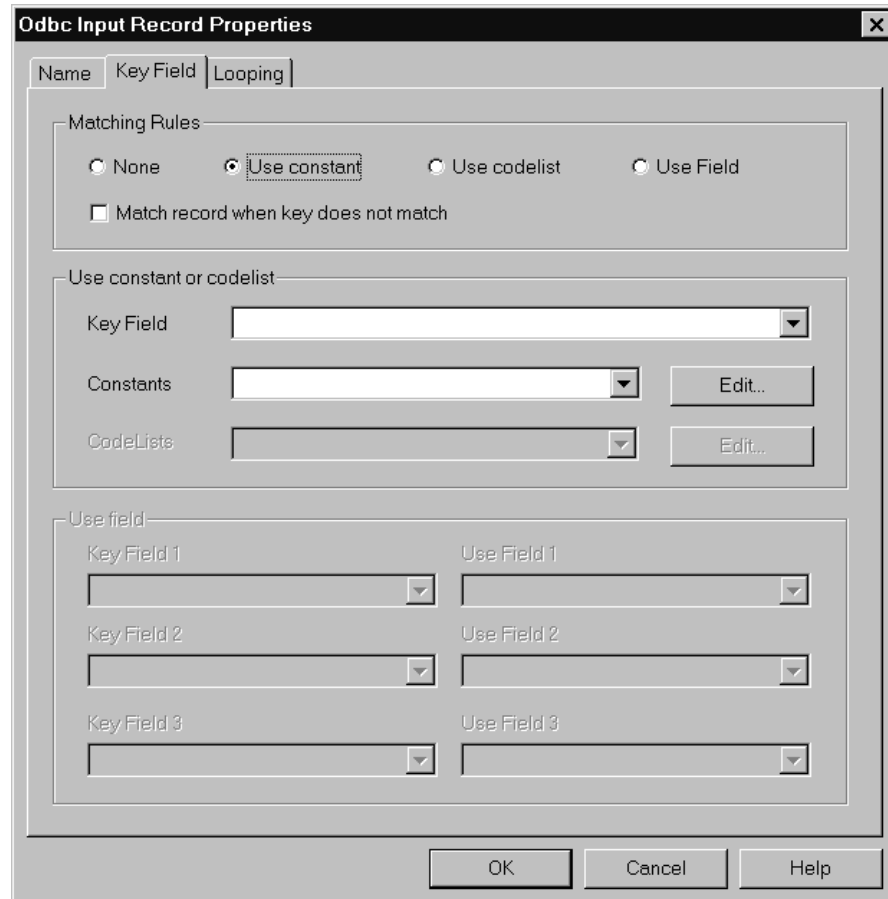
This table lists the parts of the Name tab and their functions.

Part	Function
Name	Defines the name of the input record. Note Do not use spaces or dashes (-) for the name. You can use the underscore (_) to separate words.
Description	Describes the input record to differentiate it from other similar records.

(Continued on next page)

Key Field tab

This diagram illustrates the Key Field tab of the ODBC Input Record Properties dialog box.

**Key Field tab parts and functions**

This table lists the parts of the Key Field tab and their functions.

Part	Function
Matching Rules	
None Use constant Use codelist Use Field	Indicates the type of information that the system uses to match this record. Note Selecting Use constant or Use codelist activates the middle section of the dialog box. Selecting Use Field activates the bottom section of the dialog box. (Continued on next page)

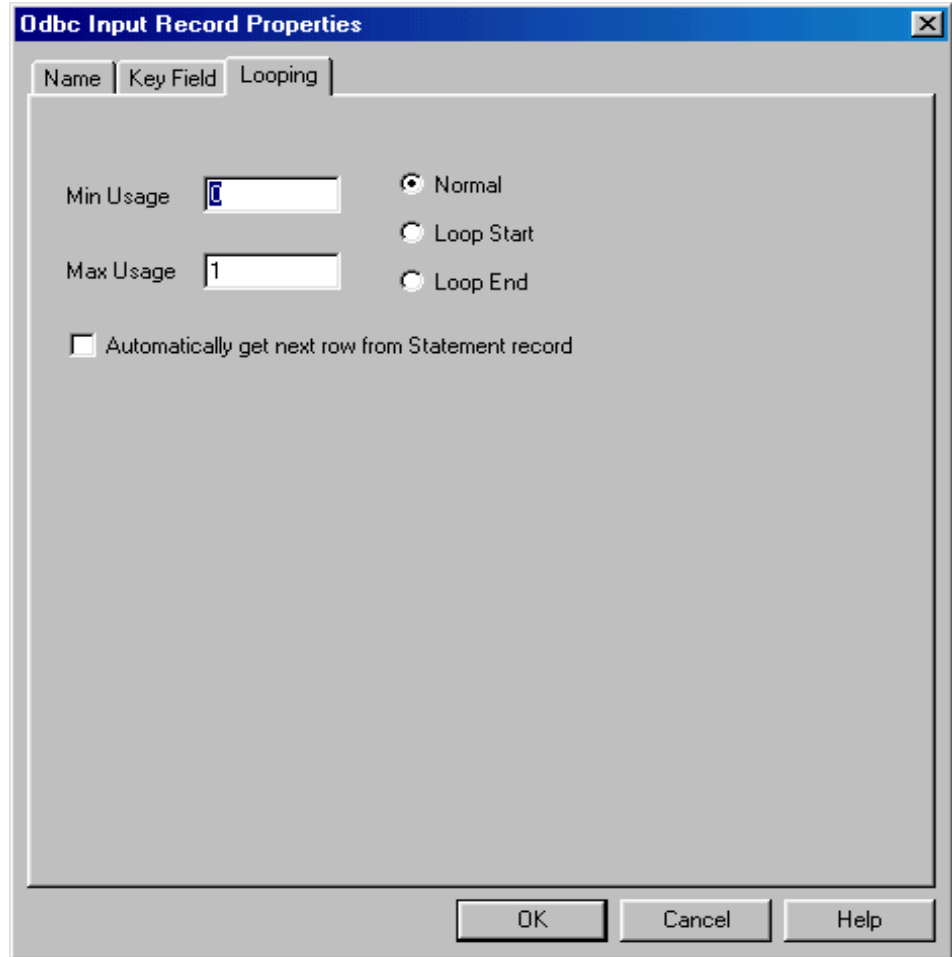
(Contd) Part	Function
Match record when key does not match	<p>If checked, this selection indicates that the system should match the record if the Key Field does not have the value specified.</p> <p>Note This gives you the ability to further recognize an ambiguous record definition.</p>
Use constant or codelist	
Key Field	Contains the field that the system verifies to check if it does or does not (depending on which you specify) match the constant, code list, or field value or values.
Constants Edit	<p>Contains a list of defined constants. The system will match the selected constant against the key field.</p> <p>To add or change a constant, click Edit to access the Translation Object Constants dialog.</p>
Code Lists Edit	<p>Contains a list of defined code lists. The system will match the selected code list against the key field.</p> <p>To add or change a code list, click Edit to access the Code Lists dialog box.</p>
Use Field	
Key Field 1	<p>Specifies the first key field.</p> <p>Note Contains all the active fields from this record.</p>
Use Key Field 1	<p>Specifies that the system should use this value.</p> <p>Note Contains all the active fields from the preceding records (not including this record).</p>
Key Field 2	<p>Specifies the second key field, if necessary.</p> <p>Note Contains all the active fields from this record.</p>
Use Key Field 2	<p>Specifies that the system should use this value.</p> <p>Note Contains all the active fields from the preceding records (not including this record).</p> <p style="text-align: right; color: red;">(Continued on next page)</p>

(Contd) Part	Function
Key Field 3	Specifies the third key field, if necessary. Note Contains all the active fields from this record.
Use Key Field 3	Specifies that the system should use this value. Note Contains all the active fields from the preceding records (not including this record).

(Continued on next page)

Looping tab

This diagram illustrates the Looping tab of the ODBC Input Record Properties dialog box.

**Looping tab parts and functions**

This table lists the parts of the Looping tab and their functions.

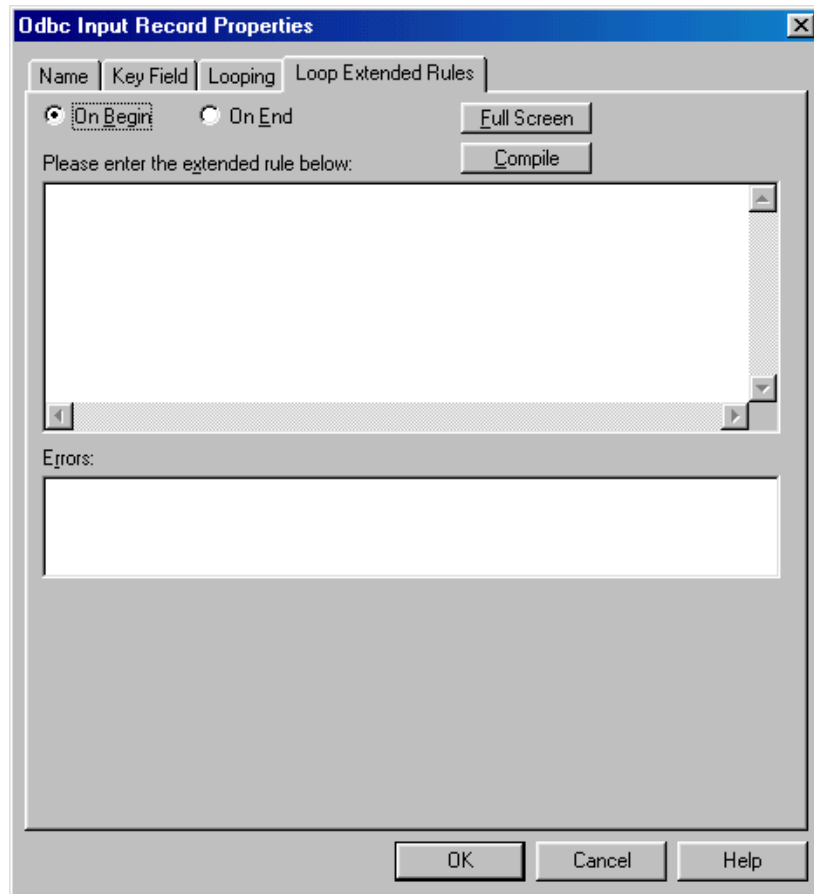
Part	Function
Min Usage	<p>Specifies the minimum amount of times the loop must repeat.</p> <p>Note If this box contains a "0" (zero), the record is conditional. If the Min Usage box contains a "1" or greater, the record is mandatory.</p> <p style="text-align: right;">(Continued on next page)</p>

(Contd) Part	Function
Max Usage	Specifies the maximum amount of times the loop can repeat.
Normal Loop Start Loop End	Indicates the type of loop. Valid values are as follows. <ul style="list-style-type: none">▶ Normal (This record is in the loop but is not the beginning or ending record)▶ Loop Start (This record marks the beginning of the loop)▶ Loop End (This record marks the end of the loop)
Automatically get next row from Statement record	Indicates that the system performs a movement operation as the input record loops.

(Continued on next page)

Loop Extended Rule tab

This diagram illustrates the Loop Extended Rule tab of the ODBC Input Record Properties dialog box. This tab is used only if the record repeats.



Parts and functions

This table lists the parts of the Loop Extended Rule tab of the ODBC Input Record Properties dialog box and their functions.

Part	Function
On Begin	Specifies that the extended rule is executed before the system processes the record.
On End	Specifies that the extended rule is executed after the system concludes processing the record.
Full Screen	Maximizes the dialog box.

(Continued on next page)

(Contd) Part	Function
Compile	Compiles the extended rule. Any warnings or errors are displayed in the Errors list. Note This function gives you immediate feedback about the accuracy of your rule. The rule is compiled when you compile the entire translation object.
Extended rule	Defines the extended rule.
Errors	Displays any errors generated when you clicked Compile to compile the extended rule.

How to Create an Input Record

Introduction This topic explains how to create an input record.

Procedure Use this procedure to create an input record.

Step	Action
1	Right-click a map component and select either Create Sub or Insert from the shortcut menu. Reference See Creating Map Components for more information on the Create Sub and Insert functions.
2	From the shortcut menu, select Input Record . System Response The system displays the ODBC Input Record Properties dialog box.
3	On the Name tab, specify the following: <ul style="list-style-type: none"> ▶ unique input record name and ▶ description (if applicable).
4	Select the Key Field tab to access the key field options.
5	Select the appropriate options to define the key field and continue with the next step.
6	Select the Looping tab to access the occurrence options.
7	In the Maximum usage box, type the number of times the record can repeat (loop).
8	Do you want to specify that the system automatically gets the next row from the statement record order/join? <ul style="list-style-type: none"> ▶ If YES, select that option and continue with the next step. ▶ If NO, continue with the next step. <p style="text-align: right;">(Continued on next page)</p>

(Contd) Step	Action
9	Did you specify that the record repeats (loops)? <ul style="list-style-type: none">▶ If YES, continue with the next step.▶ If NO, continue with Step 11.
10	Do you want to specify an extended rule for this input record? <ul style="list-style-type: none">▶ If YES, select the Loop Extended Rules tab, define the rule, and continue with the next step. <p>Reference See the <i>GENTRAN:Server Application Integration User's Guide</i> for information about defining extended rules.</p> ▶ If NO, continue with the next step.
11	Click OK . System Response The system saves the input record and closes the ODBC Input Record Properties dialog box.

Working with Output Records

Output Records

Definition An output record represents an UPDATE, INSERT, or DELETE SQL statement, and contains database output fields. You link it with the name of the table the system modifies.

Fields represent columns The fields contained within an output record represent the columns the system is updating or inserting and the key to the affected row or rows. You can create output records on both the input and output sides of a map.

Limitations You cannot reference the output record in standard rules or links.

Key field functionality You can use the standard GENTRAN:Server key field constant and code list functions with output records. Additionally, the system enables you to match against fields that appear earlier in the map. If you choose to match against an earlier mapped field, you can use up to three key fields.

This additional key field functionality is very useful when you are mapping from a join of master-detail records to an equivalent hierarchy, because this allows the translator to detect when the keys in the detail level no longer match the keys in the master level.

Reference

See the *GENTRAN:Server Application Integration User's Guide* for information about these functions.

(Continued on next page)

Auto get next cursor operation

If the fields of an output record all belong to the same query, you can specify that the system automatically perform an auto get next cursor operation as the output record loops.

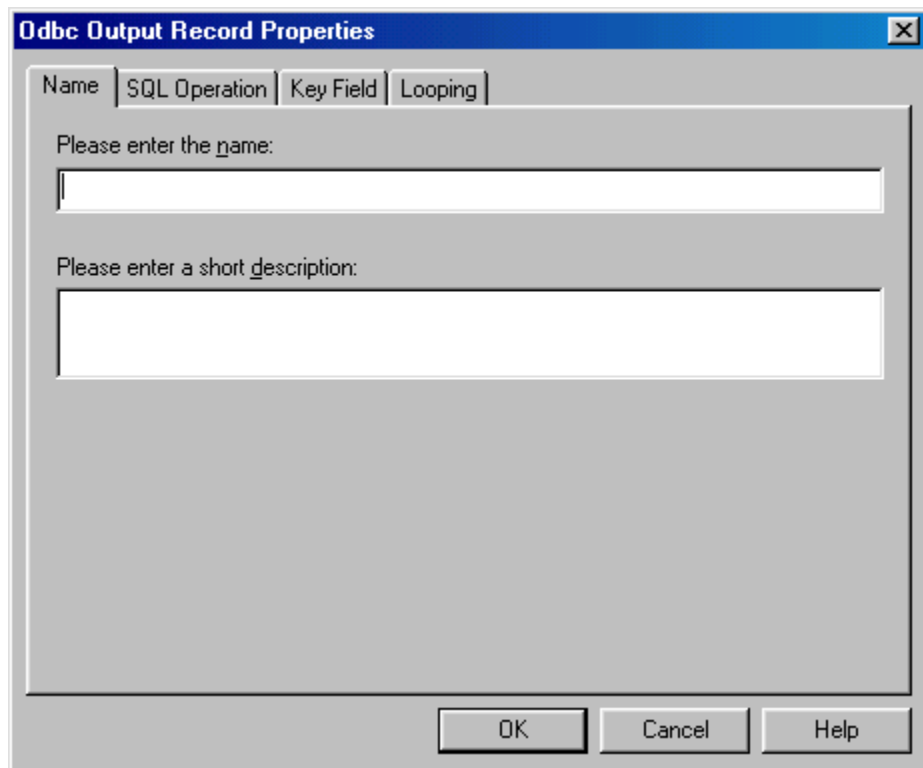
Note

You specify the **Automatically get next row from Statement record** option on the Looping tab of the ODBC Output Record Properties dialog box.

ODBC Output Record Properties Dialog Box

Introduction The ODBC Output Record Properties dialog box is used to specify the properties of an output record.

Name tab This diagram illustrates the Name tab of the ODBC Output Record Properties dialog box.



(Continued on next page)

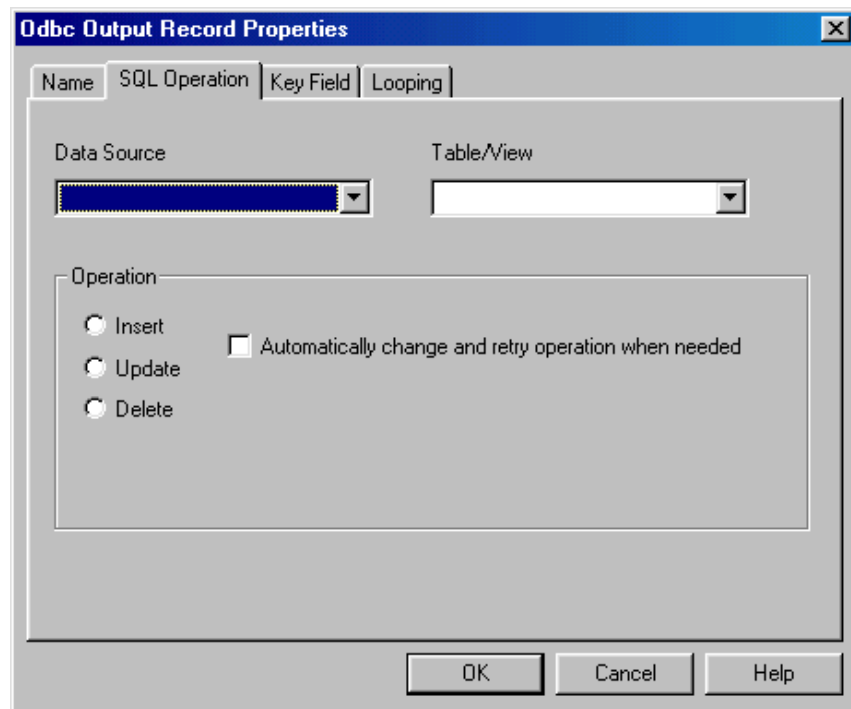
Name tab parts and functions

This table lists the parts of the Name tab of the ODBC Output Record Properties dialog box and their functions.

Part	Function
Name	Defines the name of the output record. Note Do not use spaces or dashes (-) for the name. You can use the underscore (_) to separate words.
Description	Describes the output record to differentiate it from other similar records.

SQL Operation tab

This diagram illustrates the SQL Operation tab of the ODBC Output Record Properties dialog box.



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**SQL Operation
tab parts and
functions**

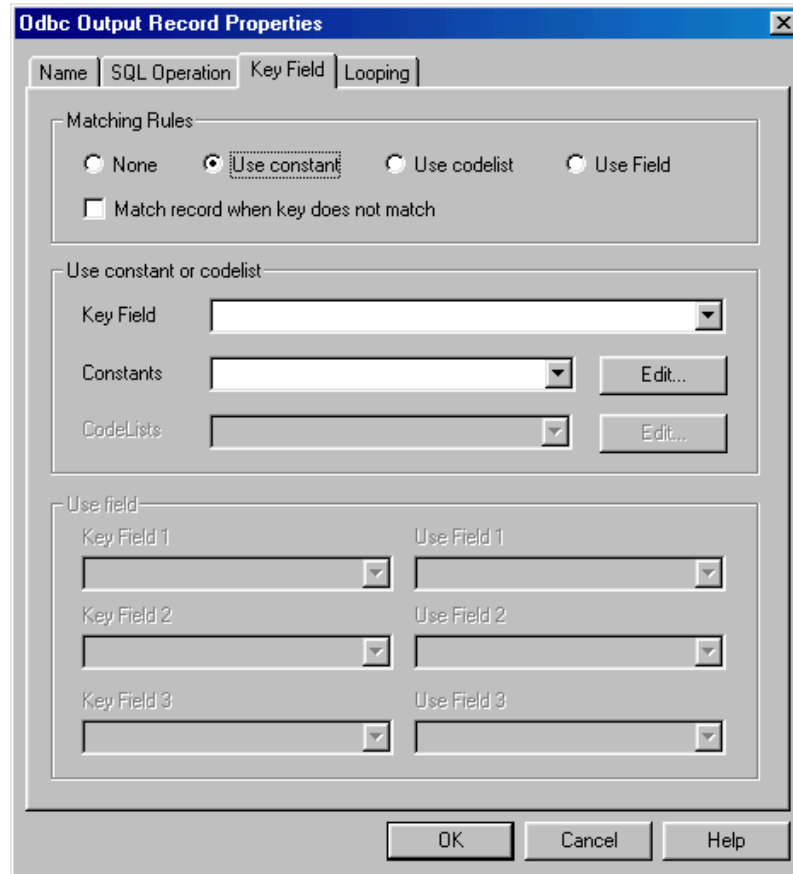
This table lists the parts of the SQL Operation tab and their function.

Part	Function
Data Source	Contains a list of the associated data sources.
Table/View	Contains a list of the database tables or views for the selected data source.
Insert Update Delete	Indicates which operation the system performs against the table or view.
Automatically change and retry operation when needed	Enables you to set up retry functions at the map level instead of at the global level.

(Continued on next page)

**Key Field tab
(input side of
map)**

This diagram illustrates the Key Field tab of the ODBC Output Record Properties dialog box as it appears on the input side of a map. (A topic about the dialog as it appears on the output side of a map follows this topic.)



(Continued on next page)

**Key Field tab
parts and
functions (input
side of map)**

This table lists the parts of the Key Field tab on the input side of a map and their functions.

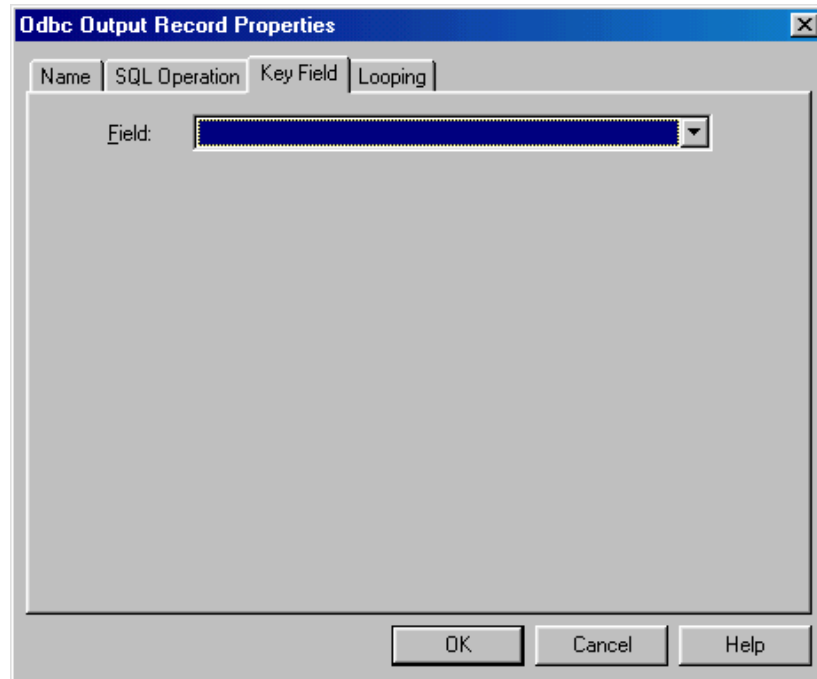
Part	Function
None Use constant Use codelist Use Field	Specifies the type of information that the system uses to match this record. Note Selecting Use constant or Use codelist activates the middle section of the dialog box. Selecting Use Field activates the bottom section of the dialog box.
Match record when key does not match	Indicates that the system should (if selected) match the record if the Key Field does not have the value specified. Note This gives you the ability to further recognize an ambiguous record definition.
Key Field	Contains the field that the system verifies to check if it does or does not (depending on which you specify) match the constant, code list, or field value or values.
Constants Edit	Contains a list of defined constants. The system will match the selected constant against the key field. To add or change a constant, click Edit to access the Translation Object Constants dialog box. Reference See Using the Use Constant Standard Rule section in the Working with Database Maps chapter of the <i>GENTRAN:Server Application Integration User's Guide</i> .
Code Lists Edit	Contains a list of defined code lists. The system will match the selected code list against the key field. To add or change a code list, click Edit to access the Code Lists dialog box. Reference See Using the Use Code Standard Rule section in the Working with Database Maps chapter of the <i>GENTRAN:Server Application Integration User's Guide</i> . (Continued on next page)

(Contd) Part	Function
Key Field 1	Specifies the first key field. Note Contains all the active fields from this record.
Use Key Field 1	Specifies that the system should use this value. Note Contains all the active fields from the preceding records (not including this record).
Key Field 2	Specifies the second key field, if necessary. Note Contains all the active fields from this record.
Use Key Field 2	Specifies that the system should use this value. Note Contains all the active fields from the preceding records (not including this record).
Key Field 3	Specifies the third key field, if necessary. Note Contains all the active fields from this record.
Use Key Field 3	Specifies that the system should use this value. Note Contains all the active fields from the preceding records (not including this record).

(Continued on next page)

**Key Field tab
(output side of
map)**

This diagram illustrates the Key Field tab of the ODBC Output Record Properties dialog box as it appears on the input side of a map. (A topic about the dialog as it appears on the input side of a map precedes this topic.)



**Key Field tab
parts and
functions
(output side of
map)**

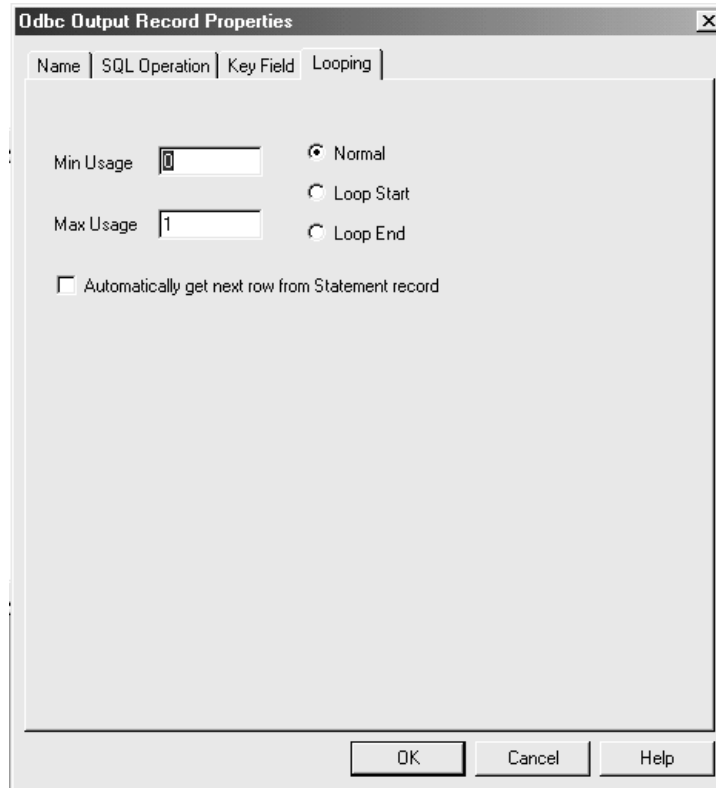
This table lists the parts of the Key Field tab on the output side of a map and their functions.

Part	Function
Field	Select the field from the list to be checked for data. When the map is run, if this field does not contain data, then the update query is not run and an output record is not generated.

(Continued on next page)

Looping tab

This diagram illustrates the Looping tab of the ODBC Output Record Properties dialog box.



(Continued on next page)

Looping tab parts and functions

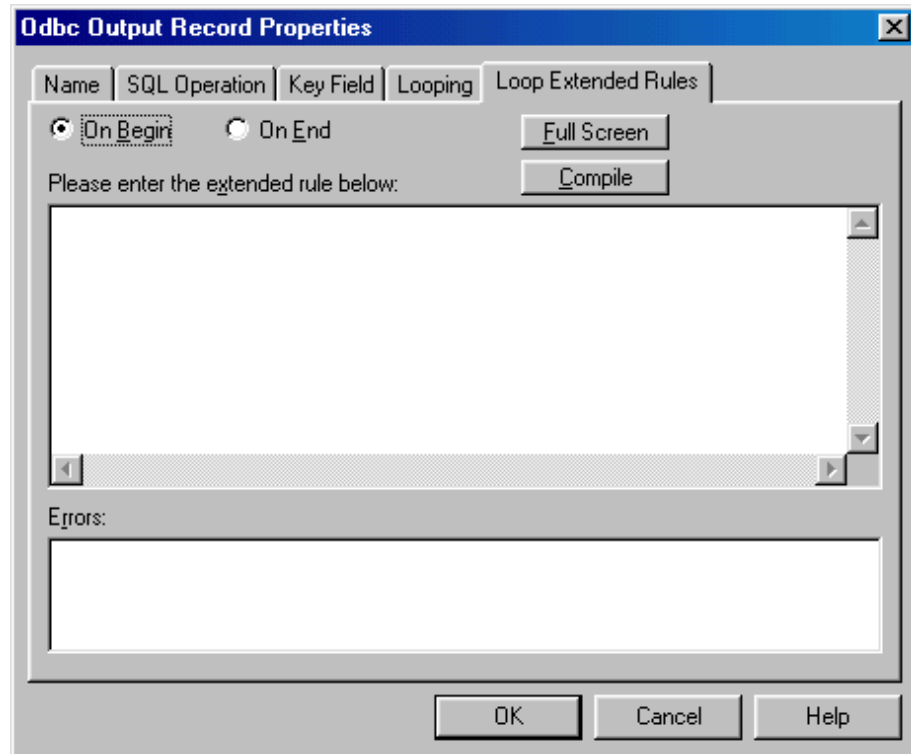
This table lists the parts of the Looping tab and their functions.

Part	Function
Min Usage	<p>Specifies the minimum amount of times the loop must repeat.</p> <p>Note If the Min Usage box contains a "0" (zero), the record is "conditional." If the Min Usage box contains a "1" or greater, the record is "mandatory".</p>
Max Usage	<p>Specifies the maximum amount of times the loop can repeat.</p> <p>Note If you enter a number greater than "1" in this field, the Loop Extended Rules tab is displayed when you return to the ODBC Output Record Properties dialog box.</p>
Normal Loop Start Loop End	<p>Indicates the type of loop. Valid values are as follows.</p> <ul style="list-style-type: none"> • Normal (This record is in the loop but is not the beginning or ending record) • Loop Start (This record marks the beginning of the loop) • Loop End (This record marks the end of the loop)
Automatically get next row from Statement record	<p>Indicates that the system performs a movement operation as the output record loops.</p>

(Continued on next page)

Loop Extended Rule tab

This diagram illustrates the Loop Extended Rule tab of the ODBC Output Record Properties dialog box. This tab is used only if the record repeats, and is displayed only if a number greater than one is entered in the Max Usage field on the Looping tab.



Loop Extended Rule tab parts and functions

This table lists the parts of the Loop Extended Rule tab of the ODBC Output Record Properties dialog box and their functions.

Part	Function
On Begin	Specifies that the extended rule is executed before the system processes the record.
On End	Specifies that the extended rule is executed after the system concludes processing the record.
Full Screen	Maximizes the dialog box.

(Continued on next page)

(Contd) Part	Function
Compile	Compiles the extended rule. Any warnings or errors are displayed in the Errors list. Note This function gives you immediate feedback about the accuracy of your rule. The rule is compiled when you compile the entire translation object.
Extended rule	Defines the extended rule.
Errors	Displays any errors generated when you clicked Compile to compile the extended rule.

How to Create an Output Record

Introduction This topic explains how to create an output record.

Procedure Use this procedure to create an output record.

Step	Action
1	Right-click a map component and select either Create Sub or Insert from the shortcut menu. Reference See Creating Map Components for more information on the Create Sub and Insert functions.
2	From the shortcut menu, select Output Record . System Response The system displays the ODBC Output Record Properties dialog box.
3	On the Name tab, specify the following: <ul style="list-style-type: none"> ▶ Unique output record name ▶ Description (if applicable).
4	Select the Odbc Output Record tab to access the output options.
5	From the Data Sources list, select the appropriate data source and continue with the next step.
6	From the Table list, select the table you want to modify and continue with the next step.
7	Select the appropriate table operation and continue with the next step.
8	Select the Key Field tab to access the key field options.
9	Select the appropriate options to define the key field and continue with the next step.
10	Select the Looping tab to access the occurrence options. (Continued on next page)

(Contd) Step	Action
11	In the Maximum usage box, type the number of times the record can repeat (loop).
12	Did you specify that the record repeats (loops)? <ul style="list-style-type: none">▶ If YES, continue with the next step.▶ If NO, continue with Step 14.
13	Do you want to specify an extended rule for this output record? <ul style="list-style-type: none">▶ If YES, select the Loop Extended Rules tab, define the rule, and continue with the next step. <p>Reference See the <i>GENTRAN:Server Application Integration User's Guide</i> for information about defining extended rules.</p> <ul style="list-style-type: none">▶ If NO, continue with the next step.
14	Click OK . System Response The system saves the output record and closes the ODBC Output Record Properties dialog box.

Working with Fields

Fields

Introduction

A field map component corresponds to a column in a database table and contains the attributes of that column. On the input side, the field receives data from a column of the current row of the open SQL query. On the output side, the field represents a column the system updates or inserts, or a key column.

You can also create fields that are not related to a database table or result set of a query; for example, extended rules may require temporary fields to store data.

Field types

The system automatically selects the field's data type (string, number, date/time) if you previously generated schema or result set information by adding or updating a data source. If you did not generate a schema or result set, you must specify the field type manually.

Reference

See [ODBC File Properties Dialog Box](#) and [How to Add an ODBC Data Source](#) for more information on generating schemas and result sets.

Operation indicator

When a field has an operation performed against it (link, standard rule, or as an extended rule storage field), the system displays a red check mark over the field icon in the map.

Field in an input record

If the field is located in an input record, the field receives data from a column in the current row of a result set of a query. You associate the field with a column returned by a query.

Note

You must test the selected query to make the Column names available. If you do not test the selected query, you must select a column number.

(Continued on next page)

Field in an output record (output side of map)

If the field is located in an output record on the output side of the map, the field represents a column the system updates or inserts, or a key column. You specify the name of the column and indicate if it is a key. The system uses key columns automatically to build a WHERE clause for UPDATE and DELETE statements.

Note

If the field is contained in an output record, the validation information is set from the column to which it is mapped.

Field in an output record (input side of map)

If the field is located in an output record on the input side of a map, you can specify both where the column is from and where the column data is going to in the target table.

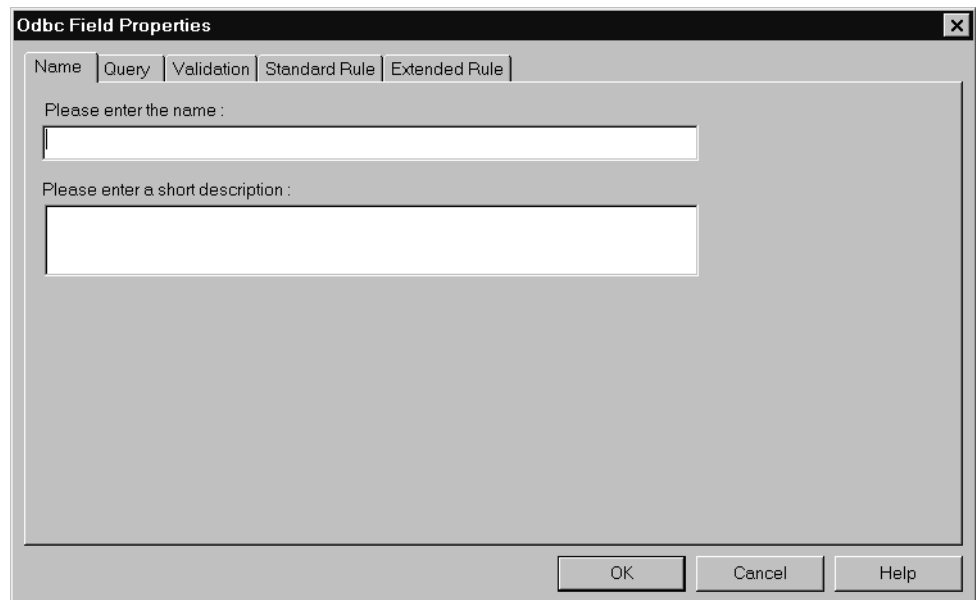
Note

If the field is contained in an output record, the validation information is set from the columns information.

Field Properties Dialog Box

Introduction The Field Properties dialog box is used to specify any formatting and operations that are used with a particular field.

Name tab This diagram illustrates the Name tab of the Field Properties dialog box. This dialog box is for the input side of a map.



Name tab parts and functions

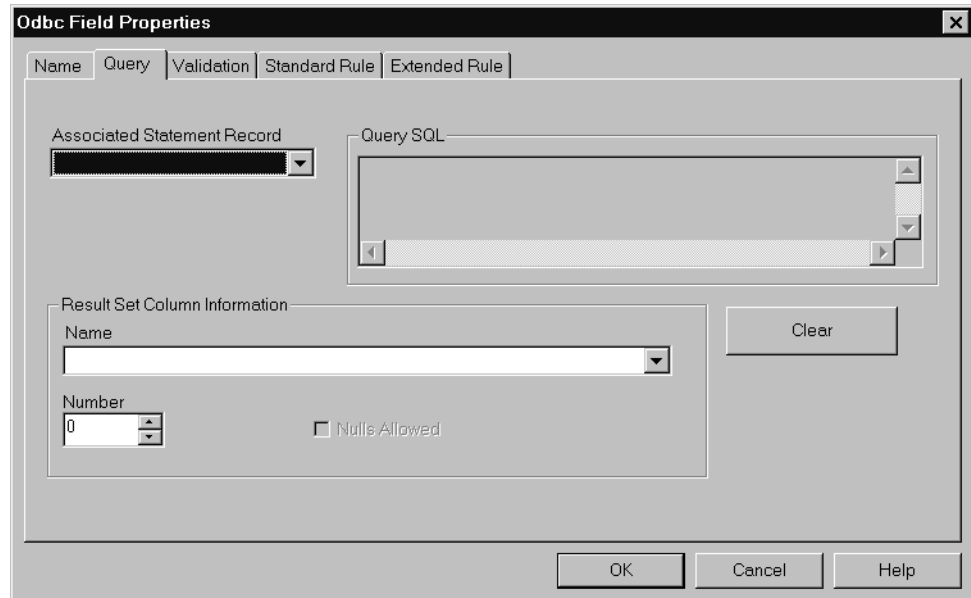
This table lists the parts of the Name tab and their functions.

Part	Function
Name	Defines the name of the field. Note Do not use spaces or dashes (-) for the name. You can use the underscore (_) to separate words.
Description	Describes the field to differentiate it from other similar fields.

(Continued on next page)

Query tab

This diagram illustrates the Query tab of the Field Properties dialog box. Only fields on the input side of a map have a Query tab. Fields on the output side have a [Column tab](#).

**Query tab parts and functions**

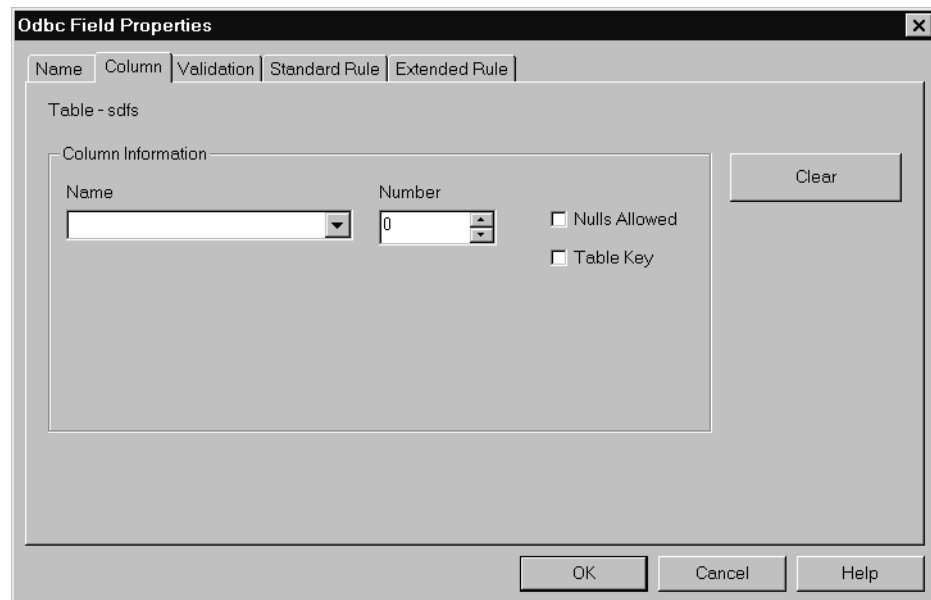
This table lists the parts of the Query tab and their functions.

Part	Function
Associated Statement Record	Contains a list of statement records.
Query SQL	Displays the SQL for the currently selected statement record.
Name	Contains a list of column names in the result set of the currently selected statement record. Note This is only applicable if you specified to connect to the database and tested the SQL. (Continued on next page)

(Contd) Part	Function
Number	<p>Contains a list of column numbers in the result set of the currently selected statement record.</p> <p>Notes</p> <ul style="list-style-type: none"> ▶ This is only applicable if you specified to connect to the database and tested the SQL. ▶ This list uses a one-based index.
Nulls Allowed	<p>Indicates whether nulls are allowed in the column selected from the Name list.</p> <p>Note For informational purposes only.</p>
Clear	Disassociates this field from any query.

Column tab

This diagram illustrates the Column tab for the Field Properties dialog box. Only output fields have a Column tab. Fields on the input side of the map have a [Query tab](#).



(Continued on next page)

Column tab parts and functions

This table lists the parts of the Column tab and their functions.

Part	Function
Name	Contains a list of column names in the table associated with the parent output record.
Number	Contains a list of column numbers in the table associated with the parent output record.
Nulls Allowed	Indicates whether the system will fill in a blank field with nulls during INSERT and UPDATE SQL statement operations to the column selected from the Name list.
Table Key	Indicates that this field will be used in a WHERE clause. Note This enables the system to format WHERE clauses used in an UPDATE or DELETE (not applicable for INSERT operations).
Clear	Disassociates this field from any query.

Validation tab

This diagram illustrates the Validation tab of the Field Properties dialog box.

Odbc Field Properties

Name | Query | **Validation** | Standard Rule | Extended Rule

Check here if this field is mandatory

Please set the allowed lengths of this field :

Minimum : Maximum :

Please choose the data-type of this field :

Please choose the format of the data in this field :

OK Cancel Help

(Continued on next page)

**Validation tab
parts and
functions**

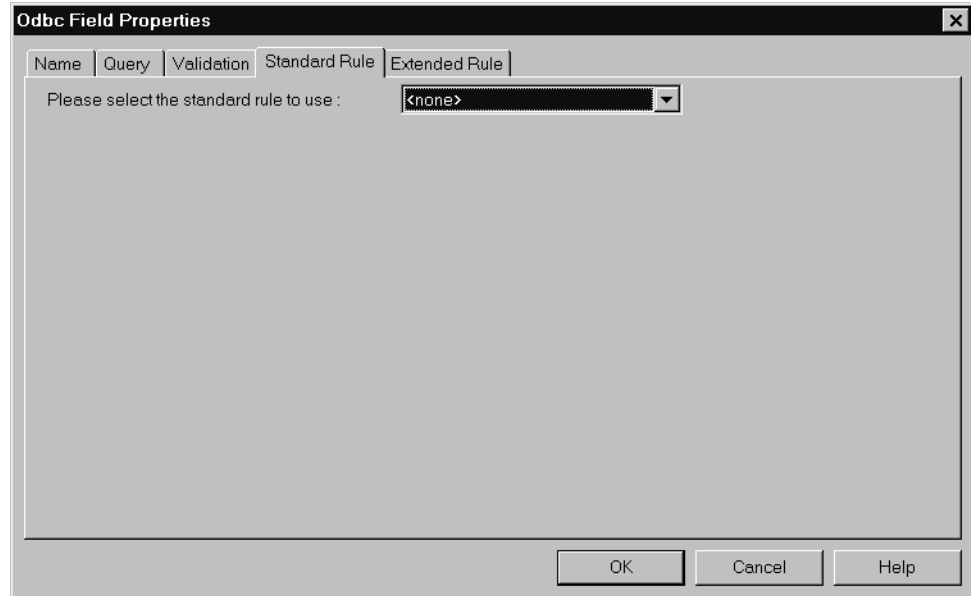
This table lists the parts of the Validation tab and their functions.

Part	Function
Mandatory	Indicates whether the field is mandatory (must appear).
Minimum	Specifies the minimum length of the field.
Maximum	Specifies the maximum length of the field.
Data-type	Specifies the type of data. Valid values are: <ul style="list-style-type: none">▶ String (alphanumeric element)▶ Number (numeric or real element)▶ Date/Time (date or time element)
Format	Specifies how the field is formatted. Note Depending on which Data-type you selected, you can either select the data format from a list (if you choose Number or Date/Time in the Type field), or enter a Syntax Token to denote that this field must be formatted as the specified Syntax Token dictates.

(Continued on next page)

Standard Rule tab

This diagram illustrates the Standard Rule tab of the Field Properties dialog box.



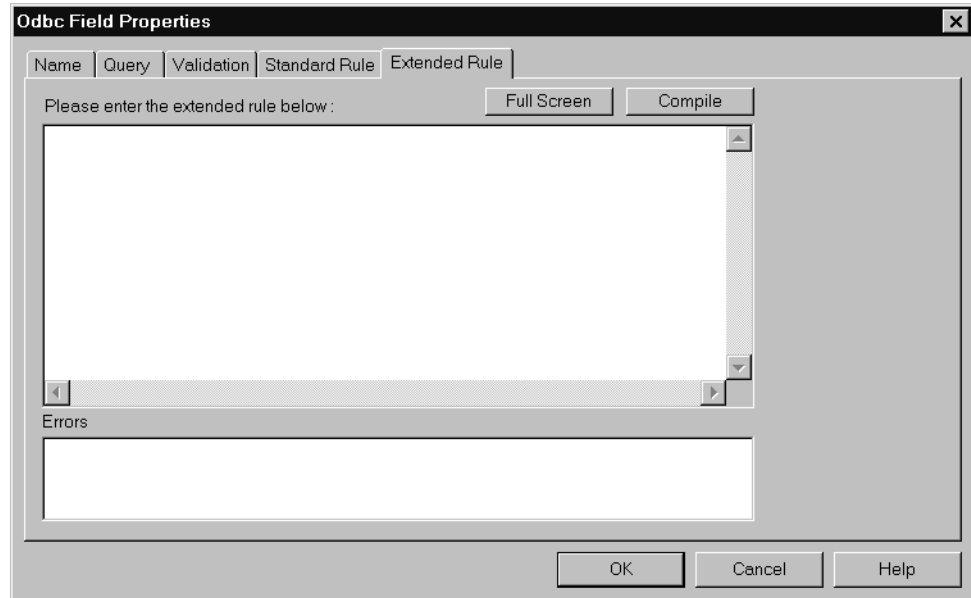
Standard Rule tab parts and functions

This table lists the parts of the Standard Rule tab and their functions.

Part	Function
Standard rule	<p>Specifies a standard rule that will affect this field or element during processing. Each of the rules are mutually exclusive.</p> <p>Reference See the <i>GENTRAN:Server Application Integration User's Guide</i> for more information on standard rules.</p> <p style="text-align: right;">(Continued on next page)</p>

Extended Rule tab

This diagram illustrates the Extended Rule tab of the Field Properties dialog box.



Extended Rule tab parts and functions

This table lists the parts of the Extended Rule tab and their functions.

Part	Function
Full Screen	Maximizes the dialog box.
Compile	Compiles the extended rule. Any warnings or errors are displayed in the Errors list. Note This function gives you immediate feedback about the accuracy of your rule. The rule is compiled when you compile the entire translation object.
Extended rule	Defines the extended rule.
Errors	Displays any errors generated when you clicked Compile to compile the extended rule.

How to Generate Database Fields

Introduction

The Generate Fields function is a wizard that enables you to quickly and easily generate fields for an input or output record. The functionality differs slightly depending on whether the record is input or output.

Before you begin

Prior to using this function, you should test your SQL queries.

Reference

See [Working with the ODBC File Component](#) for more information on testing queries.

Generating input record database fields

Use this procedure to generate input record database fields.

Step	Action
1	<p>Right-click an input record and select Generate Fields from the shortcut menu.</p> <p>System Response The system displays the Odbc Field Generator Wizard: Select Query(s) dialog box.</p>
2	<p>From the Queries list, select the defined queries and click Next.</p> <p>Note The system displays only the queries for which you generated a result set.</p> <p>System Response The system displays the Odbc Field Generator Wizard: Select Column(s) dialog box.</p>
3	<p>From the Columns list, select the desired result columns and click Finish.</p> <p>Note Click Choose All to select all the columns. Click Clear to deselect all columns.</p> <p>System Response The system adds the specified result columns to the record and automatically generates all the validation settings.</p>

(Continued on next page)

Generating output record database fields

Use this procedure to generate output record database fields.

Step	Action
1	<p>Right-click an output record and select Generate Fields from the shortcut menu.</p> <p>System Response The system displays the Odbc Field Generator Wizard: Select Table(s) dialog box.</p>
2	<p>Is the output record already associated with a data source?</p> <ul style="list-style-type: none"> ▶ If YES, continue with Step 3. ▶ If NO, from the Data Source list, select the desired data source and continue with Step 3.
3	<p>Is the output record already associated with a table?</p> <ul style="list-style-type: none"> ▶ If YES, continue with Step 4. ▶ If NO, from the Table list, select the desired database table and continue with Step 4.
4	<p>Select the table operation and click Next.</p> <p>Note Valid selections are as follows.</p> <ul style="list-style-type: none"> ▶ Insert ▶ Update ▶ Delete <p>System Response The system displays the Odbc Field Generator Wizard: Select Column(s) dialog box.</p>
5	<p>From the Columns list, select the desired result columns and click Finish.</p> <p>Note Click Choose All to select all the columns. Click Clear to deselect all columns.</p> <p>System Response The system adds the specified result columns to the record and automatically generates all the validation settings.</p>

How to Manually Create a Field

Introduction This topic explains how to manually create an input or output field.

Procedure Use this procedure to create a field.

Step	Action
1	Right-click a map component and select either Create Sub or Insert from the shortcut menu. Reference See Creating Map Components for more information on the Create Sub and Insert functions.
2	From the shortcut menu, select Field . System Response The system displays the Field Properties dialog box.
3	On the Name tab, specify the following: <ul style="list-style-type: none"> ▶ Unique field name in the Name box ▶ Description (if applicable) in the Description box.
4	Is this a field on the input side of the map? <ul style="list-style-type: none"> ▶ If YES, select the Query tab and continue with the next step. ▶ If NO (this is a field on the output side), select the Column tab and continue with Step 8.
5	From the Associate Statement Record list, select the record with which this field is associated and continue with the next step.
6	From the Name list, select the table name and continue with the next step. Note If the Name list is not available, this indicates that you did not test the SQL query. Instead, select a number from the Number box. <i>(Continued on next page)</i>

(Contd) Step	Action
7	Do you want to allow nulls? <ul style="list-style-type: none"> ▶ If YES, select the Nulls Allowed option and continue with Step 11. ▶ If NO, continue with Step 11.
8	On the Column tab, select the column name from the Name list. <p>Note If the Name list is not available, this indicates that you did not select to connect to a data source to build a table in the ODBC File Properties dialog box. Instead, select a number from the Number box.</p>
9	Do you want to allow nulls? <ul style="list-style-type: none"> ▶ If YES, select the Nulls Allowed option and continue with the next step. ▶ If NO, continue with the next step. <p>Note This option is only applicable for fields in an output record.</p>
10	Will this field be used in a WHERE clause? <ul style="list-style-type: none"> ▶ If YES, select the Table Key option and continue with the next step. ▶ If NO, continue with the next step.
11	On the Validation tab, specify the following: <ul style="list-style-type: none"> ▶ whether the field is required or not, ▶ minimum length, ▶ maximum length, ▶ type of data, and ▶ how the data is formatted.
12	Do you want to specify a standard rule for this field? <ul style="list-style-type: none"> ▶ If YES, select the Standard Rule tab, define the rule, and continue with the next step. <p>Reference See the <i>GENTRAN: Server Application Integration User's Guide</i> for information about defining standard rules.</p> <ul style="list-style-type: none"> ▶ If NO, continue with the next step. <p style="text-align: right;">(Continued on next page)</p>

(Contd) Step	Action
13	<p>Do you want to specify an extended rule for this field?</p> <ul style="list-style-type: none">▶ If YES, select the Extended Rule tab, define the rule, and continue with the next step. <p>Reference See the <i>GENTRAN:Server Application Integration User's Guide</i> for information about defining extended rules.</p> <ul style="list-style-type: none">▶ If NO, continue with the next step.
14	<p>Click OK.</p> <p>System Response The system saves the field and closes the Field Properties dialog box.</p>

Checking Database Consistency

Check Database Consistency Function

Description

The Check Database Consistency function:

- Compares the definitions of each query, output record, and field on the selected side of the map with the associated data source
- Returns a list of any inconsistencies.

This function alerts you to inconsistencies in your database, but does not fix your map components.

Example

An inconsistency occurs if a field tries to extract data from a query column that the data source does not return.

Automatic checking

The system checks database consistency:

- When you update the data source (on the Data Source tab of the ODBC File Properties dialog box)
- As the first action of compiling the map.

Manual checking

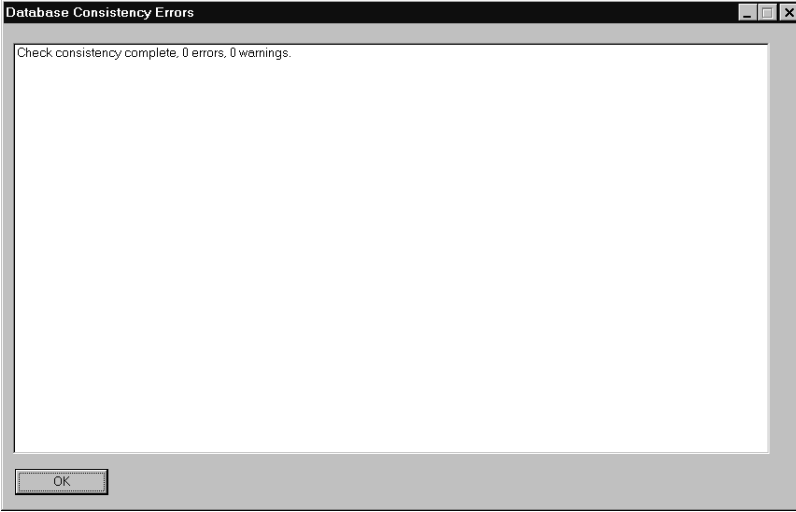
You can run the Check Database Consistency function from the ODBC side of a map.

Reference

See the next topic, [How to Check Database Consistency](#), for instructions.

How to Check Database Consistency

Procedure Use this procedure to check database consistency.

Step	Action
1	<p>Right-click an ODBC file format icon and select Check Database Consistency from the shortcut menu.</p> <p>System Response The system verifies the consistency of the selected side of the map and displays any inconsistencies on the Database Consistency Errors dialog box.</p> 
2	<p>Click OK.</p> <p>System Response The system closes the Database Consistency Errors dialog box.</p>

Translation Parameters for Database Maps

Parameter guidelines

These are the lfrtran parameters for ODBC (database) translation when a database is the input source:

- Use the -b parameter without the data source name to specify database translation using the data source specified in the file definition that the map uses. This is because the data source name is specified within the map itself.
- Use only the -T <tpcode> parameter to specify the Trading Partnership Code that you want to use for all sets in the input file.

You cannot point to a file definition for the Trading Partnership Code.

- If translation is database-to-database, specify a valid output file name, or use the \$ placeholder for the input file name (command line option only). If lfrtran encounters a file in the input side it will attempt to process the file in the specified location.

For output files, specify a valid output file name with the -f parameter. If you are translating to a database, you can use the \$ placeholder for the output file name (command line option only).

CAUTION

These parameters are NOT valid for ODBC translation for Application Integration maps: -A, -a, T<x>,<y>.

Using delayed enveloping with ODBC translation

If you want to use delayed enveloping in an ODBC-to-standard translation, you must configure your SQL statement to return only one result set at a time. The translator will do multiple calls to the database, as long as there is data it can process from the database, during one translation session. Each of these calls returns its own results that contain one set. Then the translator will process this result set and map it out to produce an EDI set.

To avoid having already-translated data included in subsequent result sets for that session, the map must be set up to flag rows of data that have already been processed, and the SQL statement must then exclude the flagged rows from result sets.

(Continued on next page)

Creating a map for ODBC translation

This process table contains the stages for setting up a map for use with delayed enveloping and ODBC-standard translation.

Stage	Description
1	Create a DSN with association to the database you want to access.
2	Construct the SQL statements in the Application Integration map so that input is restricted to a single set.
3	Create an input record based on the layout of the tables in your database to extract the desired data.
4	Set the maximum number of times the record can loop to 1.
5	Create an output record to flag data as processed with every data set returned by the database.
6	In the database, add a new column called "Processed" to one of the tables that you want to access. This column has to be a field in the output record.
7	In Application Integration, on the input side of the map, ensure that you update the ODBC data source (in Properties) so the new column is recognized.

(Continued on next page)

Stage	Description
8	<p>Configure the map to enter a flag in this column to mark each row that is processed by the translator.</p> <p>To do this:</p> <ol style="list-style-type: none"> a) On the source side of the map, create an Output record. b) On the Properties dialog for this new record, select Update as the table operation. c) Map one field of the new record to the Processed column in the database. d) From the properties of that field, write an extended rule that assigns the process flag to this column. <p>Example</p> <p>The extended rule could look like this:</p> <pre>#PROCESSED="1"</pre> <p>Where:</p> <p>PROCESSED is the field in the output update record that was mapped to the processed field in the database.</p>
9	<p>Change the SQL statement to exclude the flagged rows from the results for the current call. The SQL statement will exclude sets that have the flag "1" in this field.</p> <p>Example</p> <p>The SQL statement could look like this:</p> <pre>select * from where and table.processed="0"</pre>

Each time the translator makes a call to the database table, the result should exclude the data that was processed on previous calls.

How to Set Translation Parameters for Database Maps

Ways to set translation parameters

You can set translation parameters in these ways:

- ▶ Set the Iftran parameters in the translation script.
- ▶ Set options on the Translation Options dialog box for a specific input file when you run translation from the Translate menu.

Reference

See the Running Translation chapter in the *GENTRAN:Server Application Integration User's Guide* for more information about setting translation options.

Files required for translation

Before you can execute a translation in GENTRAN:Server, you need to be sure that all of the necessary files for the process are available. Those files include:

- ▶ Translation object
- ▶ Trading partnership records
- ▶ Input data file

Setting translation parameters in a script

Use this procedure to set ODBC translation parameters in a translation script.

Step	Action
1	Open the translation script in a script editor.
2	Locate the Iftran command line.
3	Modify the Iftran parameters. Follow the parameter guidelines described in Translation Parameters for Database Maps . (Continued on next page)

(Contd) Step	Action
	<p>Syntax Examples</p> <p>This syntax example shows lftran options for an ODBC-to-standard translation:</p> <pre>lftran \$ -obT [Trading Partner Code] -cp config path</pre> <p>This syntax example shows lftran options for a standard-to-ODBC translation:</p> <pre>lftran <input file name> -ib \$ -cp config path</pre> <p>This syntax example shows lftran options for an application-to-ODBC translation:</p> <pre>lftran <input file name> -ob \$ -cp config path</pre> <p>Where:</p> <ul style="list-style-type: none"> i = inbound o = Outbound b = Database T = Trading Partner code
4	Save the script.
5	Test translation and verify that the output is correct.

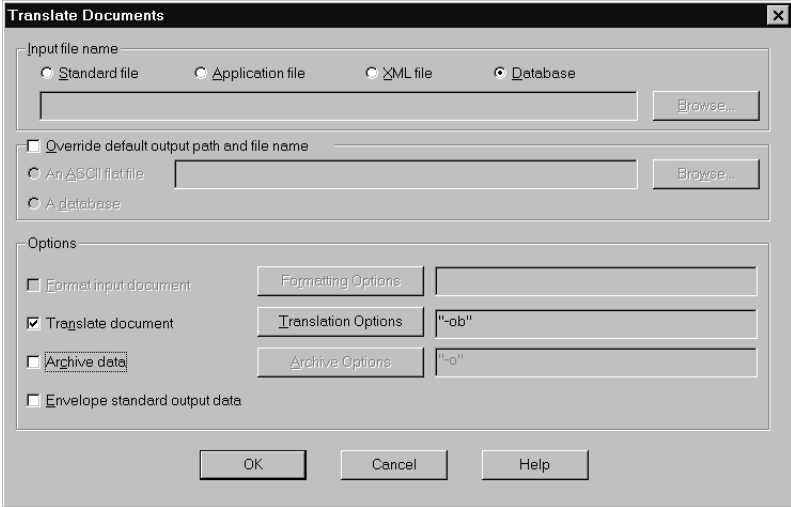
(Continued on next page)

Setting parameters on the Translation Options dialog box

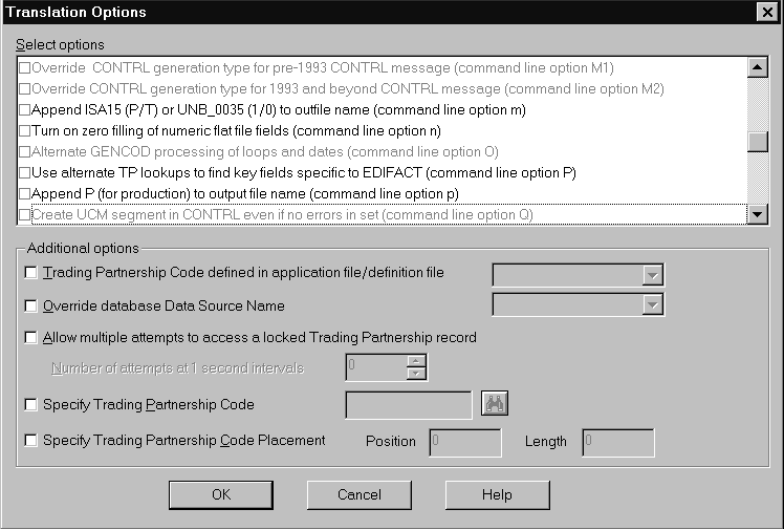
Use this procedure to set ODBC translation options from the Translation Options dialog box

Reference

See the Running Translation chapter in the *GENTRAN:Server Application Integration User's Guide* for more information about setting translation options.

Step	Action
1	Click Documents on the Translate menu. System Response GENTRAN:Server displays the Translate Documents dialog box.
2	Select the type of input file: <ul style="list-style-type: none"> ▶ Application file ▶ XML file (available if you have the XML translation option) ▶ Database (ODBC) ▶ Standard Example  <p style="text-align: right; color: red;">(Continued on next page)</p>

(Contd) Step	Action	
3	<p>Is the input file in a standard, application, or XML file format?</p> <ul style="list-style-type: none"> ▶ If YES, specify the input file name by clicking Browse to display the Translation Input File dialog box. Browse through the directories and select a file name. Click Open. ▶ If NO, (the input file is a database) continue with the next step. 	
4	Use this table to decide your next step.	
	IF you want to...	THEN...
	Store the output data in the location specified in the Trading Partnership record	Go to step 5.
Store the data in a different location	<ul style="list-style-type: none"> ▶ Click Override default output path and filename ▶ Click the ASCII flat file option ▶ Click Browse to display the Translation Output File dialog box and select the output file name. 	
5	<p>Do you want to set different or additional translation parameters? (The default parameters are displayed next to the Translation Options button.)</p> <ul style="list-style-type: none"> ▶ If YES, click the Translation Options button. Continue with Step 6. ▶ If NO, GO TO Step 8. <p style="text-align: right; color: red;">(Continued on next page)</p>	

(Contd) Step	Action
6	<p>Select the translation parameters for this translation.</p> <p>Important You must use the Specify Trading Partnership Code option when the input for translation is a database.</p> 
7	Click OK to return to the Translate Documents dialog box.
8	<p>Do you want to archive the EDI data?</p> <ul style="list-style-type: none"> ▶ If YES, select Archive Data and then continue with the next step. ▶ If NO, go to step 10.
9	<p>Do you want to select archiving options?</p> <ul style="list-style-type: none"> ▶ If YES, click the Archive Options button to select the archiving options you want to use. ▶ If NO, continue with the next step. <p style="text-align: right; color: red;">(Continued on next page)</p>

(Contd) Step	Action
10	If the input data is enveloped, do you want to combine like interchanges into a single interchange? <ul style="list-style-type: none">▶ If YES, select Envelope standard output data.▶ If NO, continue with the next step.
11	Click OK to start the translation. System Response GENTRAN:Server translates the data file, stores the resulting data in the appropriate file(s), and displays a process log.

Error Messages

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- ▶ Overview 2
 - ▶ Data Source Error Messages 3
-

Overview

Introduction

The GENTRAN:Server error messages and other informational messages are noted in the Compile Errors dialog box when you compile the translation object or in the Error section of the Extended Rules dialog boxes when you compile an extended rule containing errors prior to compiling the translation object, and when you commit an erroneous action in GENTRAN:Server.

The informational messages are dependent on the context of the program, and are intended to be self-explanatory. The error messages are described in the topics accessed below, along with the actions you can take to correct the problem.

In this appendix

This appendix explains how to determine the action you should take when you receive an error message.

Data Source Error Messages

Introduction The Data Source Error Messages are displayed in the Data Source Errors dialog box.

Messages The compile error messages are listed by the three-digit message number and the error message text. The error definitions contain the actions that you can take to correct the problem (if appropriate) and a description that includes possible causes of the error.

Msg ID	Message Text	Explanation/Your Action
Data Source Errors		
700	Unable to open data source	<p>Explanation An error occurred when the translator attempted to open the ODBC data source.</p> <p>Your action Verify that DSN name used is correct, and check that database is online.</p>
701	Performing rollback due to earlier errors	<p>Explanation Compliance errors were experienced during translation, which caused a rollback.</p> <p>Your action Review translation report for compliance errors and correct data in database.</p>
702	Unable to commit transaction	<p>Explanation Failed to commit transaction.</p> <p>Your action Check database error log.</p> <p style="text-align: right; color: red;">(Continued on next page)</p>

(Contd) Msg ID	Message Text	Explanation/Your Action
703	Unable to rollback transaction	<p>Explanation Error experienced during rollback which caused it to fail.</p> <p>Your action Check database error log.</p>
Query/Command-Cursor Errors		
710	Unable to open query	<p>Explanation Failed to run query statement defined in map.</p> <p>Your action Test query using Mapper or database query tools to verify its validity.</p>
711	Unable to execute command	<p>Explanation Failed to run query or stored procedure.</p> <p>Your action Test query using Mapper or database query tools to verify its validity.</p>
712	Cursor error	<p>Explanation An error occurred while processing the result set from a query.</p> <p>Your action Retry translation. If error continues to occur, apply any patches to ODBC as directed by Support.</p> <p style="text-align: right;">(Continued on next page)</p>

(Contd) Msg ID	Message Text	Explanation/Your Action
Output Errors		
720	Unable to open table for output	<p>Explanation Failed to find the table in database that was specified in the output record.</p> <p>Your action Verify table exists in database. Verify ODBC connectivity between translation computer and database computer.</p>
721	Unable to perform output operation	<p>Explanation The insert, update, or delete operation failed.</p> <p>Your action Review error detail and correct the problem.</p>
Validation Errors		
730	Mandatory Element Missing	<p>Explanation Data that specified as mandatory in the map was missing in query results.</p> <p>Your action Correct the data in the database or change the map to match the query results.</p> <p style="text-align: right; color: red;">(Continued on next page)</p>

(Contd) Msg ID	Message Text	Explanation/Your Action
731	Unable to convert data value	<p>Explanation An implicit conversion from the database datatype to that specified in the map failed.</p> <p>Your action Change the data type in the map to match the type used by the database, or change the data type in the database to match the type used by the map.</p>
732	Incorrect Element Format	<p>Explanation The format of the data received from the database did not comply with the validation specified in the map.</p> <p>Your action Fix the data in the database or change validation properties in the map.</p>
733	Implicit Rule Failure	<p>Explanation Standard rule failed to run successfully.</p> <p>Your action Review error detail and correct the problem.</p>
799	Unknown ODBC Error	<p>Explanation A general error occurred.</p> <p>Your action Contact Product Support.</p>

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